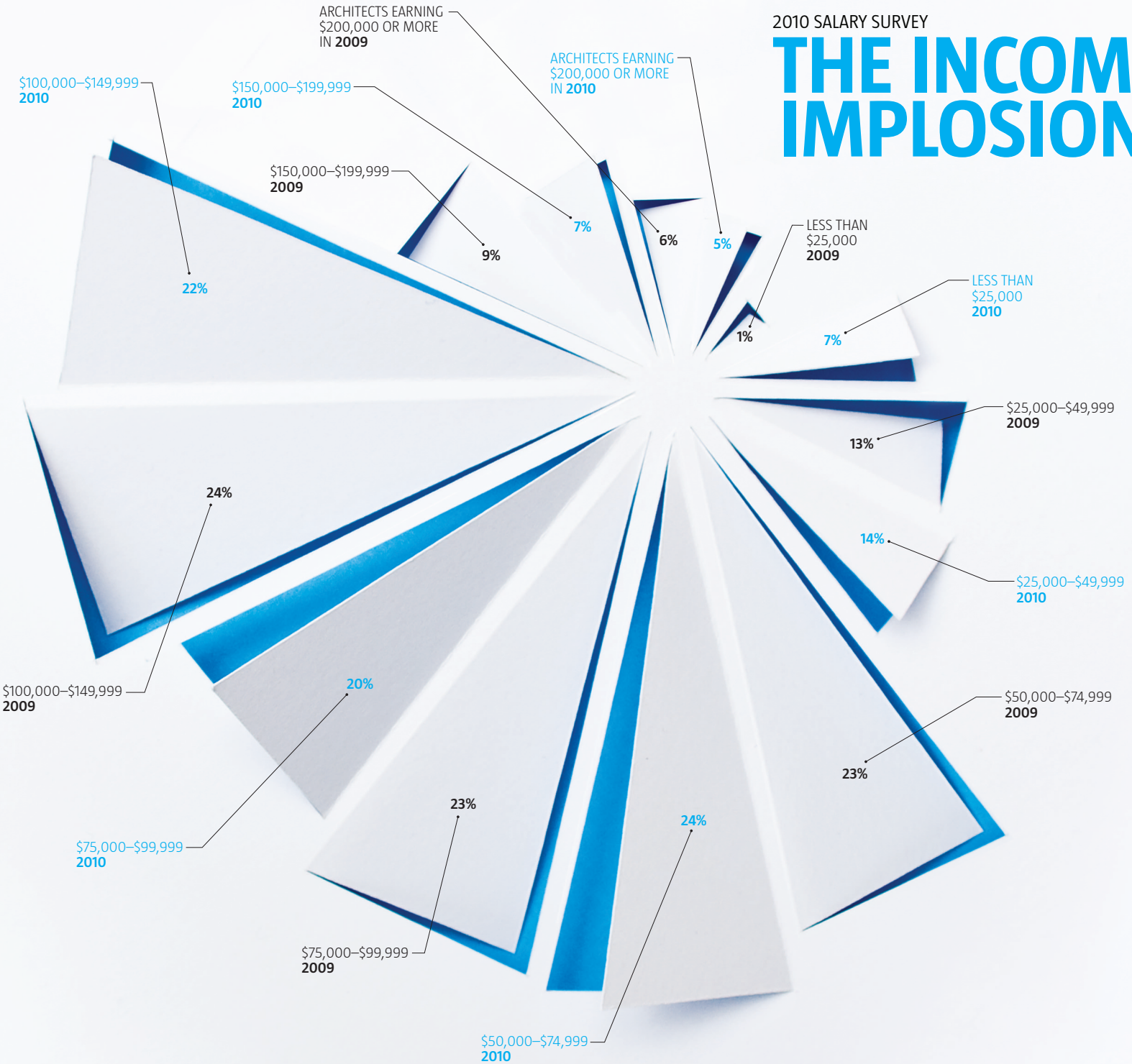
The Flexible Planetarium 88 **Building the Better Intern** 20 **A Green Write-Off** 17
Tigerman's Holocaust Museum 71 **Love, Brutalist Style** 46

ARCHITECT

hanley wood

2010 SALARY SURVEY

THE INCOME IMPLOSION



SOLARBAN®
SOLAR CONTROL LOW-E GLASS

CERTIFIED
cradle to cradle
SILVER

Cut cooling costs, equipment costs, and carbon emissions with Solarban Low-E glass.

Solarban, IdeaScapes, PPG and the PPG logo are trademarks owned by PPG Industries, Inc. | Cradle to Cradle Certified℠ is a certification mark of MBDC.

With over a billion square feet of Solarban sold, impossible-sounding LSG ratios may no longer impress you. But the results you'll find with our online energy analysis tool certainly will. For instance, with our leading Solarban glass, your next project could save $400,000 in up-front equipment costs and reduce carbon emissions by 21,000 tons. Find out more at **ppgideascapes.com/SB70XL.**

PPG Ideascapes™
Glass • Coatings • Paint

Circle no. 46 or http://architect.hotims.com

PPG Industries, Inc., Glass Business & Discovery Center, 400 Guys Run Road, Pittsburgh, PA 15024 www.ppgideascapes.com

MY FAMILY LOVES PRODUCTS THAT LOVE US BACK.

© 2010 Knauf Insulation GmbH.

It feels good knowing my home is insulated with EcoBatt® Insulation from Knauf. Like a hug I'm giving my family every second we spend here. It keeps my home comfortable, reduces my energy bills and helps protect our planet.

EcoBatt Insulation is made with recycled bottles, sand and ECOSE® Technology which is based on rapidly-renewable bio-based materials instead of phenol, formaldehyde or acrylics you find in other fiber glass insulation products.

My family deserves the best. And that includes my best effort to protect the planet we live on.

with ECOSE® TECHNOLOGY

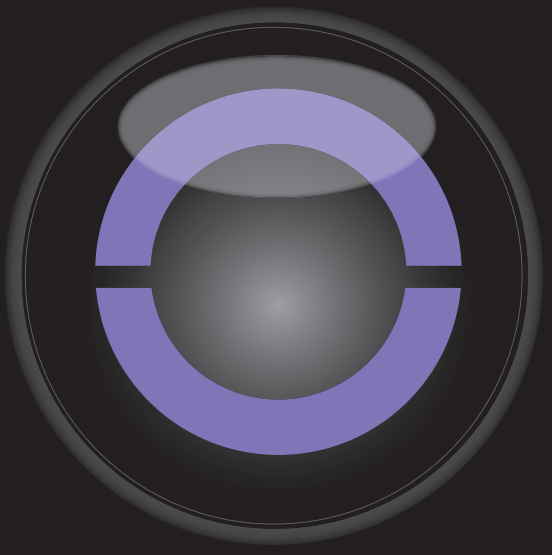
For more information call (800) 825-4434 ext. 8300

or visit us online at www.knaufinsulation.us

KNAUF INSULATION
it's time to save energy

Circle no. 445 or http://architect.hotims.com

Connect Revit® to SpecLink® with LinkMan™



BSD speclink®·e

BSD linkman™·e

Expand/collapse a single database for all your specifications . . .

- Design criteria
- Outline
- Short form
- Full construction specs

- Compare BIM objects across applications
- Collapse to show discrepancies
- Activate missing specs from a dashboard

BSD SpecLink-E is now available with its interoperability add-on, BSD LinkMan-E.

CSI strategic partner

cornerstone partner AIA

BSD
Building Systems Design, Inc.
3565 Piedmont Road NE, Two Piedmont Center, Suite 300, Atlanta, GA 30305
888-BSD-SOFT (273-7638) ° fax 404-365-8912
www.speclink.com/arch

Circle no. 23 or http://architect.hotims.com

Manufacturers: Are you being specified? Visit **www.speclink.com/bpm** to see how we can help!

HANOVER® ARCHITECTURAL PRODUCTS

LAMININ™

- Substantial reduction of efflorescence
- Low water absorption
- Protection from acid rain
- Resistance to UV damage
- Bright, vibrant color
- Long lasting installation
- Improved stain resistance

PAVER INFUSION TECHNOLOGY

LAMININ™ Paver Infusion Technology is a revolutionary new manufacturing technology that infuses Hanover® Pavers from the inside out. LAMININ™ lays the foundation to actively influence the adhesion of concrete molecules and increases the performance of Hanover's already proven concrete pavers. Concrete molecules are bonded together to strengthen and maintain the highest quality concrete pavers in the industry.

LAMININ™ Paver Infusion Technology will defend against natural elements such as:

- Acid rain
- Alkalis
- Efflorescence
- Ultraviolet Light
- Oil Stains
- Food Stains

HANOVER®
Architectural Products
www.hanoverpavers.com
800.426.4242

Circle no. 480 or http://architect.hotims.com

ARCHITECT

Editorial

EDITOR-IN-CHIEF
Ned Cramer
ncramer@hanleywood.com

MANAGING EDITOR
Greig O'Brien
gobrien@hanleywood.com

ART DIRECTOR
Aubrey Altmann
aaltmann@hanleywood.com

EXECUTIVE EDITOR
Amanda Kolson Hurley
ahurley@hanleywood.com

SENIOR EDITOR, BUILDINGS
Katie Gerfen
kgerfen@hanleywood.com

SENIOR EDITOR, DEPARTMENTS & ONLINE
Braulio Agnese
bagnese@hanleywood.com

ASSISTANT MANAGING EDITOR
Jennifer Lash
jlash@hanleywood.com

ASSOCIATE EDITOR, PRODUCTS
Kimberly R. Griffin
kgriffin@hanleywood.com

SENIOR GRAPHIC DESIGNER
Marcy Ryan
mryan@hanleywood.com

EDITORS-AT-LARGE
Edward Keegan, Vernon Mays, Hannah McCann

CONTRIBUTING EDITORS
Aaron Betsky, Blaine Brownell, Elizabeth Evitts Dickinson, John Morris Dixon, Thomas Fisher, Cathy Lang Ho, Lance Hosey, Margot Carmichael Lester, Bradford McKee, Mimi Zeiger

CONTRIBUTING ARTISTS
Ian Allen, Peter Arkle, Catalogtree, Noah Kalina, Mike Morgan

Online

GENERAL MANAGER, ONLINE
Kim Heneghan

CHIEF DESIGNER
Thomas C. Scala

SENIOR WEB PRODUCER
Richard Stirba

Services

EDITORIAL AND ADVERTISING OFFICES
One Thomas Circle, NW, Suite 600
Washington, DC 20005
Phone: 202.452.0800
Fax: 202.785.1974

SUBSCRIPTION INQUIRIES, CUSTOMER SERVICE, AND BACK-ISSUE ORDERS
E-mail *arch@omeda.com*, or call 888.269.8410 (toll-free in USA) or 847.291.5221.
Visit *architectmagazine.com* and click on "Subscribe" (subscriptions only).
Allow six to eight weeks for delivery of first issue.

ANNUAL SUBSCRIPTION RATES
USA: $59; Canada: $69
Other countries: $199
(12 monthly issues)

SINGLE-COPY PRICES
USA: $10; Canada: $15;
Other countries: $20

ADDRESS CHANGES
ARCHITECT
P.O. Box 3494
Northbrook, IL 60065-9831

REPRINTS
Wright's Reprints
sales@wrightsreprints.com
877.652.5295

MEDIA KITS
architectmediakit.com

LETTERS TO THE EDITOR
Please e-mail *ncramer@hanleywood.com*. (Letters may be edited for length, content, grammar, and style.)

PRODUCT SUBMISSIONS
Please e-mail a press release and image to *products@architectmagazine.com*.

PROJECT SUBMISSIONS
Please e-mail photographs, drawings, and a brief written description to *kgerfen@hanleywood.com*.

NEWSLETTERS
ARCHITECT magazine produces two free e-mail newsletters: the daily **ARCHITECT Newswire** and the **ARCHITECT Weekly**. Subscribe at *architectmagazine.com*.

CONTINUING EDUCATION
To register for our free courses, please visit *architectmagazine.com* or *architectCES.com*.

Volume 99, number 4. April 2010. ARCHITECT® (ISSN 0746-0554; USPS 009-880) is published monthly plus an annual product guide by Hanley Wood, LLC, One Thomas Circle, NW, Suite 600, Washington, DC 20005. Copyright 2010 by Hanley Wood, LLC. Reproduction in whole or in part prohibited without written authorization. All rights reserved. Printed in the USA.

Periodicals postage paid at Washington, D.C., and at additional mailing offices.
POSTMASTER: Send address changes to ARCHITECT, P.O. Box 3494, Northbrook, IL 60065-9831.

Canadian Post International Publication Mail Sales Agreement No. 40612608. Send undeliverable Canadian addresses to Bleuchip International, P.O. Box 25542, London, ON N6C 6B2.

hanley wood · ABM · BPA

Air and moisture infiltration...

BUILDING WRAPS | FLASHINGS | CONSTRUCTION TAPE | ROOF UNDERLAYMENT | LANDSCAPE PRODUCTS | GEOTEXTILES

Meet TYPAR® MetroWrap.™ With superior bulk water holdout, Type I air resistance, and 12 months of UV protection, TYPAR MetroWrap easily withstands the pressures above four stories. **High performance lives here.**

Circle no. 483 or http://architect.hotims.com

Visit typar.com/metrowrap

TYPAR® MetroWrap™

© 2010 Fiberweb, Inc.
TYPAR® and MetroWrap™ are trademarks of Fiberweb, Inc.

Grasspave^2 porous paving has the beauty you want, the strength you need, and the environmental benefits your clients demand. Grasspave^2 has 100% real grass coverage for a beautiful look and 5,721 psi compressive strength for fire lanes, truck access, and parking lots. Grasspave^2 mitigates the urban heat island effect, filters pollutants, recharges groundwater, allows tree growth, and comes from 100% recycled plastic.

invisiblestructures.com
800-233-1510

Invisible Structures, Inc.

Circle no. 400 or http://architect.hotims.com

ARCHITECT

Advertising

EXECUTIVE DIRECTOR, COMMERCIAL DESIGN AND CONSTRUCTION
Patrick J. Carroll
pcarroll@hanleywood.com
773.824.2411

PUBLISHER, COMMERCIAL DESIGN
Russell S. Ellis
rellis@hanleywood.com
202.736.3310

REGIONAL SALES MANAGER, EAST, TX, OK, AR, LA, FL
Michael Lesko
mlesko@hanleywood.com
203.445.1484

REGIONAL SALES MANAGER, MID-ATLANTIC AND SOUTHEAST
Nick Hayman
nhayman@hanleywood.com
202.736.3457

REGIONAL SALES MANAGER, WEST
Mark Weinstein
mweinstein@hanleywood.com
562.598.5650

REGIONAL SALES MANAGER, MIDWEST
Michael Gilbert
mgilbert@hanleywood.com
773.824.2435

NATIONAL ADVERTISING MANAGER, LIGHTING
Cliff Smith
csmith@hanleywood.com
864.642.9598

REGIONAL SALES MANAGER, NEW ENGLAND, GEORGIA, FLORIDA, INDIANA, OHIO
Dan Colunio
dcolunio@hanleywood.com
617.304.7297

REGIONAL SALES MANAGER, CANADA
D. John Magner
jmagner@yorkmedia.net
416.598.0101, ext. 220

ACCOUNT MANAGER, CANADA
Colleen T. Curran
ctcurran@yorkmedia.net
416.598.0101, ext. 230

REGIONAL SALES MANAGER, UNITED KINGDOM/EUROPE
Stuart Smith
stuart.smith@ssm.co.uk
44.020.8464.5577

GROUP PUBLISHING SUPPORT MANAGER
Angie Harris
aharris@hanleywood.com
773.824.2415

MARKETING MANAGER
Lauren Cardinet
lauren@decisioncounsel.com

RESOURCE AND CLASSIFIED SALES ACCOUNT MANAGER
Erin Liddell
eliddell@hanleywood.com
773.824.2445

Production

DIRECTOR OF PRODUCTION AND PRODUCTION TECHNOLOGIES
Cathy Underwood

PRODUCTION MANAGER
Paige Hirsch

AD TRAFFIC MANAGER
Lauren Dobos

PREPRESS MANAGER
Fred Weisskopf

PREPRESS COORDINATOR
Betty Kerwin

Hanley Wood Business Media

PRESIDENT/HANLEY WOOD
Peter M. Goldstone
202.736.3304

PRESIDENT, MARKET INTELLIGENCE/E-MEDIA
Andy Reid

PRESIDENT, EXHIBITIONS
Rick McConnell

DIRECTOR OF FINANCE
Ron Kraft

VICE PRESIDENT, CIRCULATION AND DATABASE DEVELOPMENT
Nick Cavnar

GENERAL MANAGER, CUSTOM SOLUTIONS
Jennifer Pearce

VICE PRESIDENT, PRODUCTION
Nick Elsener

EXECUTIVE DIRECTOR, E-MEDIA
Andreas Schmidt

VICE PRESIDENT, MARKETING
Sheila Harris

SENIOR DIRECTOR, HUMAN RESOURCES
Curtis Hine

DIRECTOR, CONFERENCES & EVENTS
Stacey Chattman

DIRECTOR, INSIDE SALES
Janet Allen

Hanley Wood, LLC

CHIEF EXECUTIVE OFFICER
Frank Anton

CHIEF FINANCIAL OFFICER
Matthew Flynn

SENIOR VICE PRESIDENT, CORPORATE SALES
Paul Tourbaf

VICE PRESIDENT, FINANCE
Brad Lough

VICE PRESIDENT, GENERAL COUNSEL
Mike Bender

VICE PRESIDENT, CORPORATE DEVELOPMENT
Joe Carroll

DISCLOSURE ARCHITECT® will occasionally write about companies in which its parent organization, Hanley Wood, LLC, has an investment interest. When it does, the magazine will fully disclose that relationship.

PRIVACY OF MAILING LIST Sometimes we share our subscriber mailing list with reputable companies we think you'll find interesting. However, if you do not wish to be included, please call us at 888.269.8410.

YES,
WE CHOOSE SPANISH CERAMIC

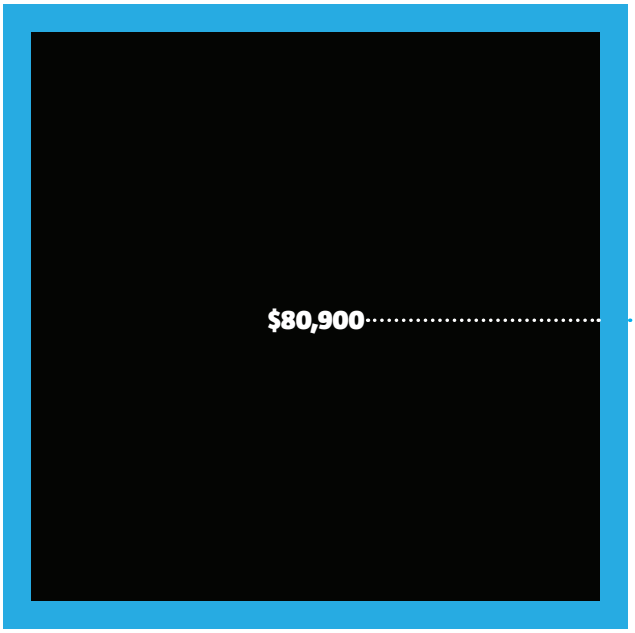
Yes, we choose Spanish ceramic tiles because of the constant technological innovations, the modern designs and the industry's commitment to the environment. In an increasingly competitive marketplace the Spanish ceramic tile industry's distinguishing feature is its boundless creativity and ability to innovate.
Tile of Spain, a quality product that brings you new trends, applications and architectural uses to create spaces with a more human dimension.
Why don't you go for Spanish tiles too?

tile of spain®

Tile of Spain - Trade Comission of Spain Voice: 305 446 4387 F.: 305 446 2602 miami@mcx.es www.spaintiles.info
Tile of Spain and the "Ñ" logo are registered trademarks of ASCER (Ceramic Tile Manufacturers' Association of Spain)
Circle no. 385 or http://architect.hotims.com

CONTENT

ROBERT POLIDORI



CATALOGTREE

WARREN JAGGER

FEATURES

52 **Salary Survey 2010: Less = The New More**
2009 was a bad year for architects. How bad? We've got the numbers on salaries across the country at firms large and small. How does yours stack up?
AMANDA KOLSON HURLEY, WITH KARLIN ASSOCIATES

BUILDINGS

63 **Marriott Hall, St. Albans School**
Nestled on the grounds of the National Cathedral in Washington, D.C., Skidmore, Owings & Merrill's building is half renovation, half new construction, and, despite being unabashedly modern, fits perfectly into the 100-year-old campus. KATIE GERFEN

71 **Illinois Holocaust Museum**
Stanley Tigerman won the commission for the new Holocaust Museum in Skokie, Ill., on the power of a napkin sketch, showing a building that combined respect for history with hope for the future. EDWARD KEEGAN

79 **Joukowsky Institute for Archaeology & the Ancient World**
Inside the simulated-limestone Rhode Island Hall, prominently located at the edge of the Brown University campus in Providence, R.I., Anmahian Winton Architects was asked to reinvent an interior—and update the image of an academic discipline in the process. JOSEPH GIOVANNINI

CONTRIBUTOR

Edward Keegan

"Illinois Holocaust Museum" page 79

"The Tax Man Deducteth" page 17

Editor-at-large Edward Keegan is a busy man, supplementing his architectural practice as a writer, broadcaster, and teacher. To this diverse résumé he can now add creator of an iPhone app. "Chicago Architecture: A Critical Guide" ($2.99) has 80 entries on Chi-Town architecture, each of which gives historical information and critical commentary in addition to slide shows and GPS-enabled maps. The app runs on the iPhone, iPod Touch, and iPad.

ON THE COVER
WHAT IS YOUR SALARY? 2010 VS. 2009. INFOGRAPHIC BY CATALOGTREE.

PELLA ADVANTAGE NUMBER 134:

NO STRESS ON YOU. OR THE ENVIRONMENT.

ISLANDWOOD — LEED® GOLD

Renewable wood. Plentiful sand. Recycled aluminum and glass. It's the stuff that Pella® wood and fiberglass windows and doors are made of that makes it so easy to be green. An enlightened commitment to sustainable resources. That's The Power Of Yellow.® Call **866-70-PELLA** or visit pellacommercial.com/green for your **FREE** Pella environmental brochure.

Minimum Energy Performance / Optimize Energy Performance	Recycled Content	Increased Ventilation	Controllability of Systems	Daylight & Views
PREREQ 2 / CREDIT 1	**CREDITS 4.1 & 4.2**	**CREDIT 2**	**CREDIT 6.2** – Thermal Comfort	**CREDITS 8.1 & 8.2**
Energy & Atmosphere	Materials & Resources	Indoor Environmental Quality	Indoor Environmental Quality	Indoor Environmental Quality

Possible LEED®-NC v3.0 points contribution from Pella products.

Circle no. 396 or http://architect.hotims.com

RECOGNIZED FOUR YEARS IN A ROW
ENERGY STAR AWARD 2010
SUSTAINED EXCELLENCE

NFRC National Fenestration Rating Council® CERTIFIED

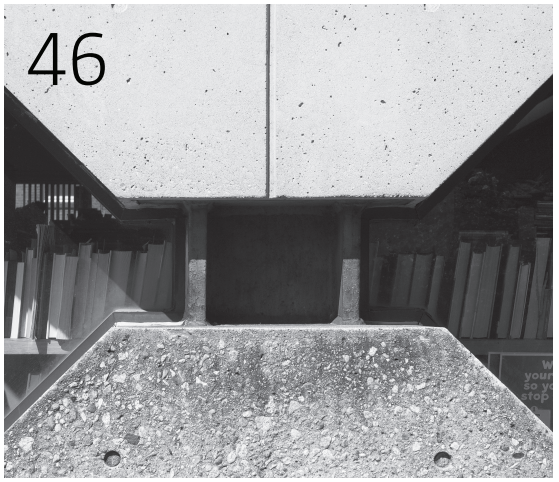
U.S. GREEN BUILDING COUNCIL MEMBER

FSC
The mark of responsible forestry
SCS-COC-002711
© 1996 Forest Stewardship Council A.C.

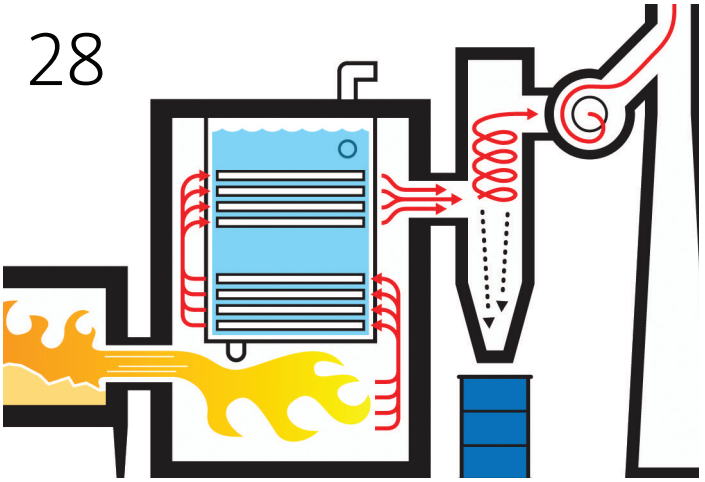
Pella® COMMERCIAL

© 2010 Pella Corporation

CONTENT



MARK PASNIK/PINKCOMMA GALLERY



NIK SCHULZ

Right How to stop worrying and learn to love the Brutalism.

Far Right Making gas from wood chips for a K–12 school in upstate New York.

FRONT

12 **Dialogue** Care-Mongering

14 **News**

BUSINESS

17 **Best Practices** The Tax Man Deducteth
Tax code section 179D makes green architecture good for your bank account. EDWARD KEEGAN

20 **Interns** The Many Faces of IDP
Firms share strategies for ushering the next generation toward licensure. VERNON MAYS

23 **Local Market** Manchester, N.H.
Ensuring the economic viability of what gets built means few developments here are in financial straits. MARGOT CARMICHAEL LESTER

TECHNOLOGY

25 **Detail** Yas Hotel Grid Shell
The sweeping glass-scaled structure is both light source and landmark. GIDEON FINK SHAPIRO

28 **HVAC** Gas From Wood
A gasifier might be your ticket to a more environmentally friendly, and cheaper, heating system. BRADFORD MCKEE

32 **Eco** Danger Signs
If buildings' impact were more obvious, would we demand greater change? LANCE HOSEY

34 **Products** Kitchen & Bath
A bamboo sink, low-flow showerheads, a slim range hood, and more … KIMBERLY R. GRIFFIN

CULTURE

43 **Books, Objects & Exhibits**
Roy McMakin's vases, World War I cemeteries, New York after climate change, and more …

46 **Crit** Tough Love: In Defense of Brutalism
The concrete buildings of a few decades ago are now mostly scorned. Before we tear them down, we should consider what will be lost. MICHAEL KUBO, MARK PASNIK, AND CHRIS GRIMLEY

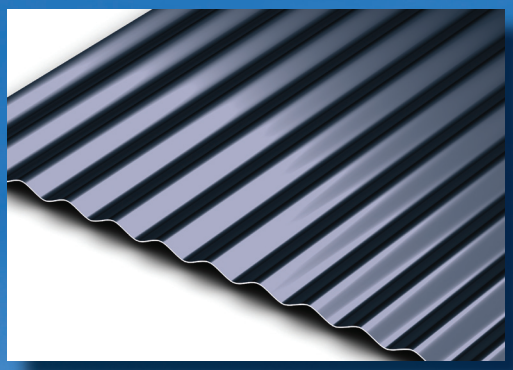
50 **Screen Grab** architizer.com
Networking for architects, minus the idle chatter. JOHN GENDALL

PAST PROGRESSIVES

88 **1960** Shell Game
The expressive form of HOK's design for the St. Louis Planetarium accommodated the building's changing functions. THOMAS FISHER

WWW.ARCHITECTMAGAZINE.COM

→ **News, Products, Project Slide Shows, Expert Bloggers & More …**



Twist on History

Firecreek Restaurant - Downingtown, PA Owner: Silverang Hallowell Development Company / Carroll Contractors
Architect: Carroll Design Build Roofing Contractor: Munn Roofing Material: 24 ga. Galvalume Plus, 16 oz. Copper
Profile: High Snap-On Standing Seam, 1/2" Corrugated

Up-to-the-minute Green Metal Roofing Resource!
PACGREENINFO.COM

What's on the menu? PAC 1½" Corrugated Panels.

They helped transform an abandoned paper mill from the 1800s into a chic restaurant and bar for today.

- Ideal for Commercial, Industrial and Residential Applications.
- Available in 37 colors on Steel and Aluminum.
  All finishes are PAC-CLAD® Kynar 500®
- Perforated or Stucco Embossed options.

PAC-CLAD
Petersen Aluminum

www.PAC-CLAD.com
Elk Grove Village, IL: 1 800 PAC CLAD
Annapolis Junction, MD: 1 800 344 1400
Tyler, TX: 1 800 441 8661
Acworth, GA: 1 800 272 4482
Fridley, MN: 1 877 571 2025

Circle no. 470 or http://architect.hotims.com

CARE-MONGERING

REGARDLESS OF THEIR PERSONAL POLITICS, ALL ARCHITECTS HAVE A RESPONSIBILITY TO SERVE THE LESS FORTUNATE.

YOU DON'T HAVE TO LIVE ON CAPITOL HILL, like I do, to have caught wind of the antics that occurred there in the hours before Congress passed the healthcare reform bill. The media was all over the situation, and I'm not talking about the legislative process. I'm talking about reports of protestors spitting on one congressman, lobbing racist and homophobic slurs at several, and—now that President Obama has signed the bill into law—making death threats against its supporters.

On second thought, "antics" is far too gentle a word for such behavior. I'm all for peaceful protest, passive resistance, and civil disobedience, à la Gandhi, but disobedience loses any claim on civility when the perpetrators shout the N-word at a leader of the civil rights movement, Rep. John Lewis, who, as a young man, was beaten and suffered a skull fracture at the hands of state police during a 1965 march in Selma, Ala. Why would anyone want to repeat that particular moment in history?

The day before the healthcare vote, I moderated a symposium in Richmond, Va., called "The Architecture of Necessity." The event was organized by the Virginia Society AIA, but even Oliver Stone couldn't have scripted a more extreme contrast with the next day's Tea Party on the Hill, 100 miles north and worlds apart.

Compare the ugly slur against Lewis with Phil Freelon's presentation of the design for the National Museum of African American History and Culture, Teddy Cruz's analysis of social and spatial tensions on the San Diego–Tijuana border, Julie Eizenberg's strategies for affordable housing, and Andrew Freear and the Rural Studio's latest works in impoverished Hale County, Ala. Architects can take pride in having such caring, committed people in their ranks.

Another thing architects can be proud of—all AIA members, at least—is the Code of Ethics and Professional Conduct, architecture's version of the Hippocratic Oath. In view of the healthcare demonstrations and the symposium in Richmond, I think it's worth recalling a few of the obligations (the AIA's word, not mine) stated therein:

> **Ethical Standard 1.4** Human Rights: Members should uphold human rights in all their professional endeavors.
> **Rule 1.401** Members shall not discriminate in their professional activities on the basis of race, religion, gender, national origin, age, disability, or sexual orientation.
>
> **Ethical Standard 2.2** Public Interest Services: Members should render public interest professional services, including pro bono services, and encourage their employees to render such services. Pro bono services are those rendered without expecting compensation, including those rendered for indigent persons, after disasters, or in other emergencies.

In other words, regardless of their personal politics, all architects have a concrete professional responsibility to serve the less fortunate and to uphold their basic human rights. This spirit of altruism runs even more deeply than the AIA Code of Ethics. It is embedded in the profession's DNA.

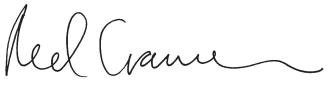
Our system of architectural education is still based in large part on the Bauhaus model. We learn in architecture school that the early Modernists were reformers, intent on rationalizing architectural form and construction to reflect the latest technological advances. And as the Great War made possible, in fits and starts, the democratization of Europe, giants of the field such as Marcel Breuer and Le Corbusier made no distinction between architectural reform and social reform. They wrote manifestos, they designed workers' housing, they founded schools—all to improve the lot of the individual and build a more egalitarian society.

Today's profession is the inheritor of this legacy. Programs like the Rural Studio recall for us—as architects, and as Americans—what Abraham Lincoln called "the better angels of our nature." Every architect has the capacity to be an angel.

It's not necessary to dedicate your career to designing hospitals in Rwanda (though that would be a lovely gesture). And you don't have to be happy about the prospect of a tax hike to help pay some stranger's medical bill. Nonetheless, architects have the opportunity—and the obligation—to do good, to volunteer, to provide pro bono services, to contribute to the commonweal. It comes with the job.

In 1920, in *Vers une Architecture*, Le Corbusier wrote, "It is a question of building which is at the root of social unrest today: architecture or revolution." The early Modernists lived through a time of great social upheaval, and they believed that architecture could be part of the solution.

The very last line of *Vers une Architecture* reads, "Revolution can be avoided." It's a lesson worth taking to heart.



MIKE MORGAN

see.
Inside and out. See your vision realized through modern and groundbreaking architecture. Integrate digital imagery and daylighting. Imagine new possibilities. GKD media facades. See for yourself at gkdmetalfabrics.com
HEAT
GKDMETALFABRICS
800 453 8616
www.gkdmetalfabrics.com
Circle no. 260 or http://architect.hotims.com

EDITED BY BRAULIO AGNESE

Top Stories → For these stories and more, see architectmagazine.com.

Thanks to efforts by various parties, the **archives of Yamasaki Inc.**—Twin Towers architect Minoru Yamasaki's Troy, Mich., firm—were saved from shredding and will be maintained by Michigan's state archives. The firm shut down in January, unable to overcome debt problems.

Urban planner **Toni Griffin**—who has assisted Newark, N.J.; Washington, D.C.; and New York City with revitalization projects—has been hired to help Detroit downsize. Griffin's salary will be paid for by the Kresge Foundation.

The **International Green Construction Code**, which includes the recently published ASHRAE Standard 189.1 and is a joint effort by six industry groups, was released for public comment.

Architectural historian Renata Hejduk and others are **protesting "unsympathetic alterations" to the Kreuzberg Tower** in Berlin, designed by Hejduk's late father, John. More than 2,000 people have signed an online petition to stop the work until the Hejduk estate has been consulted.

Bruce Graham, SOM Designer of Hancock and Willis Towers, Dies at 84

BRUCE GRAHAM, the Skidmore, Owings & Merrill (SOM) principal behind legendary 20th century designs such as Chicago's Inland Steel Building, Hancock Center, and Sears (now Willis) Tower, died on March 6 at his home in Hobe Sound, Fla. He was 84 years old.

Born in Colombia in 1925, Graham grew up in Peru and Puerto Rico. He first visited Chicago for naval training while serving during World War II. Following architecture school at the University of Pennsylvania, he worked at SOM from 1951 until his retirement in 1989.

Graham led many designs for the Chicago office during its heyday in the mid-20th century. In theory, the corporate model that the founders had established was one of equal partners. Differentiation came from credits accrued through work that individual partners brought to the firm. Graham realized that about 80 percent of the firm's commissions came from the street, through SOM's excellent reputation in corporate America, and he made sure that his assistant was assigned to the phones so that all such projects could be credited to his account.

The architect was known among associates for his ability to calculate floor-area ratios and structural bays in his head while sitting in a meeting, providing developers with straightforward solutions for their real estate. He legendarily developed engineer Fazlur Kahn's structural tube high-rise concept into the "bundled tube" system used at the Sears Tower by pulling a handful of cigarettes out of his pocket and combining the tall, thin forms. EDWARD KEEGAN

IN MEMORIAM

Raimund Abraham, 76, architect and professor, Cooper Union School of Architecture; **Paul Devrouax Jr.,** 67, co-founder and managing principal, Devrouax + Purnell Architects; **Harold Kemp**, 88, University of Florida School of Architecture professor emeritus; **Der Scutt,** 75, architect; **Frank Williams,** 73, architect

NBBJ and Chan Krieger Sieniewicz to Merge

ONE OF THE NATION'S largest multioffice architecture firms, NBBJ, based in Seattle, is merging with the far smaller architecture and urban design office of Chan Krieger Sieniewicz (CKS), of Cambridge, Mass.

It is not a shotgun marriage, says Scott Wyatt, managing partner of NBBJ. The two firms have been discussing a merger for the past six months or so, having collaborated for three years on a large project for Massachusetts General Hospital in Boston. "The culture of our firms is incredibly close," Wyatt says, "and the complementary strengths made us say, 'Wow, this would be pretty great.'" Wyatt says that NBBJ was especially drawn to the strengths of CKS's urban design and planning practice. "Their dedication to creating great urban environments is a tremendous boost to us," he says, "and it opens up more of the Northeast to NBBJ."

The combined firm will have about 700 employees. For now, the CKS office will take the name Chan Krieger NBBJ. Alex Krieger, who co-founded CKS in the mid-1980s with Lawrence Chan, says that other large firms have tried in the past to merge with their office. "We've resisted all those advances," he says. In this case, however, "both sides see advantages." BRADFORD MCKEE

FEBRUARY 2010 ARCHITECTURE BILLINGS INDEX

44.8

- ↓ 43.2 commercial
- ↑ 44.2 institutional
- ↑ 43.3 mixed practice
- ↓ 47.3 multifamily residential

SOURCE: AIA

TOP TO BOTTOM: CORBIS, COURTESY SOM|STUART-RODGERS PHOTOGRAPHY

We're stacked in your corner.

If you're planning to stack prefabricated shearwalls, make sure they're Steel Strong-Wall® shearwalls. The Simpson Strong-Tie two-story solution is not only code listed, but can be installed right at the corner to save wall space. And since our engineered shearwalls are available in widths as narrow as 15 inches for stacked applications, you can design multistory homes with larger windows, doors and open spaces without sacrificing the high load values required for the project.

To ensure your walls stack up, look to Simpson Strong-Tie for the widest selection of shearwalls code listed to the 2006 IBC (see ICC-ES ESR-1679). Visit **www.strongtie.com/strongwall** or call (800) 999-5099.

SIMPSON
Strong-Tie
®

©2010 Simpson Strong-Tie Company Inc. SSW10-S

Circle no. 182 or http://architect.hotims.com

BUILD SOMETHING BRIGHT

ICYNENE™

With smart, responsible spray foam insulation choices, Icynene® helps you design Healthier, Quieter, More Energy Efficient® structures. Our expanding line of 100% water-blown solutions now includes medium density choices for higher R-value, increased load capacity, and fewer barriers to design. And with HFC- and PBDE-free products made using renewable and recycled materials, you'll know you've made a smart choice for your business, your clients, and the environment. Now that's building something bright.

Discover smart insulation solutions for brighter design at
BuildSomethingBright.com/designright

Circle no. 261 or http://architect.hotims.com

BUSINESS

INTERVIEW BY EDWARD KEEGAN
PHOTO BY MIKE MORGAN

→BEST PRACTICES

The Tax Man Deducteth

ENERGY-EFFICIENT ARCHITECTURE ISN'T JUST GOOD FOR THE ENVIRONMENT—IT ALSO CAN BE GOOD FOR YOUR FIRM'S BOTTOM LINE, THANKS TO THE 179D TAX WRITE-OFF.

If your 2009 portfolio included a government project eligible for the 179D deduction, says the Reznick Group's **Lorraine Reale**, it's not too late to apply it to your tax return. "Amended returns can be costly," she notes, "but you might be in that sweet spot where you want to bulk up your deductions."

THE ENERGY POLICY ACT of 2005 added section 179D—which allows a tax deduction for the cost of building energy-efficient commercial property—to the Internal Revenue Code. Originally scheduled to sunset at the end of 2009, 179D was extended through 2013 two years ago. Who can claim the deduction? How does it work? ARCHITECT learned the basics from Lorraine Reale, a certified public accountant and a Reznick Group principal in the company's Bethesda, Md., office. Reale, who is also a member of the National Association of Real Estate Investment Trusts and the treasurer for both Commercial Real Estate Women and Professional Women in Construction, has focused on commercial real estate throughout her entire career.

How did you get interested in taxes?
I took some classes in college, and one day the clouds parted, the light shone down, and I said, "I get it!" This

→

stuff is fun for me. I like solving puzzles. I like helping people figure out the legalese, how to compromise and make a transaction work.

What's your interest in 179D?
It's irrational, but I love certain code sections, and this is one of them. It provides such a benefit for architects and engineers.

What is the benefit?
Depending on the square footage of the building you've designed, there is a maximum of a $1.80 per square foot deduction available if there is certification that what has been crafted has reduced the annual energy and power costs by at least 50 percent.

How is the benefit determined?
You need to have the plans looked at by a certified professional—an engineer. They need to run it through the software and provide you with a report. You take the square footage and multiply the applicable dollar amount, and that's your deduction.

How does 179D relate to LEED certification?
They should go hand in hand. When you're doing LEED certification and you have designated certain improvements as being energy efficient, those are the same standards that would qualify for 179D. But you might not be going for LEED certification, and you might be doing something where this would apply.

Who can take the deduction?
It's owned by the owner of building, and they have the right to allocate it to someone else. You can make the deduction part of your negotiations when you're executing a contract for a commercial deal. Bringing it up should have some value that they'd be willing to split with you.

When you're dealing with a governmental agency, you have a better bargaining position. [Because it doesn't pay taxes,] a government agency—local, state, federal—is not worried about deductions. They are probably going to be favorably inclined to provide that deduction to the architect, the engineer, the contractor, or the environmental consultant.

Why is it worth the effort?
If it's a 250,000-square-foot building, it's a potential deduction of about $450,000. It's serious money.

What about energy-efficient projects that are already completed?
If you worked on a government building in 2009, didn't do this, and realize it now, you can go back to the governmental agency and have them sign the documentation. You can amend your tax return and get back money—assuming you made money in 2009.

So an architect could find that some additional paperwork and accounting could be lucrative during these recessionary times?
If you're in a fallow period, it's the perfect project that would benefit you.

How can knowing about 179D be marketable?
It's not something you're going to advertise on your website, but it's great to have in your back pocket. When you walk in with a commercial developer, you can bring it to the discussion as something where you're looking out for them as well as yourself. □

Circle no. 243 or http://architect.hotims.com

Distinctively RENOVATED.

Distinctively CENTRIA.

Whether you're looking to reduce the carbon footprint of an older structure, improve its energy efficiency or simply update its appearance, CENTRIA architectural metal wall systems offer the ideal solution. Featuring Advanced Thermal and Moisture Protection (ATMP®) combined with limitless aesthetic options, our architectural metal wall systems can be installed over existing structures to create a contemporary new façade or blend with an existing design style.

No matter what retrofit challenges you face, CENTRIA supports this eco-smart initiative with high performance products, reliable dealers and experienced engineering. Our experts are ready to provide solutions to your toughest retrofit questions. *Call or visit our website for more information.*

We are… Distinctively CENTRIA.

CENTRIA
Architectural Metal Wall and Roof Systems

800.752.0549 | **CENTRIA.com**

Circle no. 25 or http://architect.hotims.com

→INTERNS

The Many Faces of IDP

TEXT BY VERNON MAYS

FOUR FIRMS SHARE THEIR STRATEGIES FOR USHERING THE NEXT GENERATION OF ARCHITECTS TOWARD LICENSURE.

IT'S BEHIND HIM NOW, but Daryl Bray recalls how he struggled to learn the ropes of the architecture profession as an unlicensed intern. Twelve years ago, when Bray arrived at Tulsa, Okla.'s **Scott & Goble Architects**, there was little guidance to keep recent grads moving toward completing their Intern Development Program (IDP) requirements. "I felt kind of lost," Bray says.

Like many of his peers, Bray followed a bumpy road to reach the goal of licensure. Once he did, he resolved to make things easier for the next generation. He spearheaded a program at Scott & Goble Architects that provides comprehensive training to interns—a best-practice model for how firms can propel their young charges to professional status.

At Scott & Goble today, the nurturing of interns hinges on a "single project manager" philosophy. While interns do not formally manage a project—that remains the role of a licensed architect—they are assigned to follow one job from concept to completion. This exposes them to everything from site analysis to project close-out.

The approach's success rests heavily on a proactive mentoring system. Each intern is paired with a senior architect, and together they sign a pledge committing to a schedule for completing the IDP and Architect Registration Examination (ARE). Who makes a good mentor? "Somebody who is seasoned, and somebody who is interested in the intern's goals," says Bray.

"More and more, we encourage firms to participate in this process [of IDP mentorship]," says Harry Falconer, director of IDP at the National Council of Architectural Registration Boards (NCARB). "We absolutely see a correlation between the intern's rate of success and the level of the firm's involvement."

Educating young employees is a high priority at **Payette Associates**. Nine years ago, the Boston firm created its Young Designers Core (YDC) for the mutual benefit of interns and the firm. Structured around IDP training categories and core competencies, each YDC

event is geared for intern-level employees and has a specific learning purpose.

Interns Tom Sherman and Nicole Lecuivre currently co-chair Payette's YDC. The pair meets monthly to plan the schedule of weekly events. "We try to hit on IDP hours that are hard for young designers to achieve," says Lecuivre. But they mix it up, too. Site visits to major Boston projects are frequent, and the group also tours workshops and factories.

At the Richmond, Va., firm **Baskervill**, newly licensed coordinators with fresh memories of the IDP oversee the development program. Close supervision is key. Each intern is assigned a coordinator, who acts as an adviser; the coordinators meet regularly with the interns' supervisors to track their charges' progress, says Jay Woodburn, one of two firmwide IDP coordinators at Baskervill. "We keep a matrix of what experience they are getting. If somebody falls behind, we address it."

At San Diego's **Carrier Johnson + Culture**, expectations are set when new hires arrive: Participation in the IDP is not optional. "We try to be very active in advocating a path to licensure," says Corinne Lloyd Moody, who serves on the firm's IDP Task Force. The target timeline for completing the IDP is two and a half to three years, with two additional years allotted to pass the ARE.

> "WE ABSOLUTELY SEE A CORRELATION BETWEEN THE INTERN'S RATE OF SUCCESS AND THE LEVEL OF THE FIRM'S INVOLVEMENT."
>
> HARRY FALCONER, DIRECTOR OF IDP, NCARB

The firm provides ample support to make it happen. Staff members post events on an "Intern Opportunities Calendar"—maintained on the firm's intranet—that highlights in-house lectures, meetings with construction managers, site visits, and more. Like many firms, Carrier Johnson also provides critical financial support to help cash-strapped interns attain licensure, including reimbursement for items such as conference registrations and professional-accreditation test fees.

Of course, not all interns are so fortunate. Many firms pay little attention to their needs, and the recession has left thousands on the IDP path without work or with a checkered employment history. For these people, NCARB's Falconer points to the Emerging Professional's Companion (epcompanion.org), an online initiative created by NCARB and the AIA. Rebooted last year with overhauled content, the site, Falconer says, is "a supplementary [IDP] education tool." He also explicitly encourages firms to continue mentoring when they have to let somebody go, and he tells interns to ask their former bosses for help. "It's hard not to lash out," Falconer admits, "[but] try to keep those ties."

Payette's president, James Collins, says that it requires a leap of faith that the cumulative effect of pushing young people to be smarter, more skilled, and socially more connected will be improved project work. It makes them better professionals, he adds, "and our justification has to be on that merit." □

Circle no. 251 or http://architect.hotims.com

Circle no. 166 or http://architect.hotims.com

KEEP GROWING

Your LEED Professional Credential sets you apart in your field.

LEED GREEN ASSOCIATE™

LEED AP BD+C™

As a LEED Green Associate or AP with Specialty, you can transform your practice and your career.

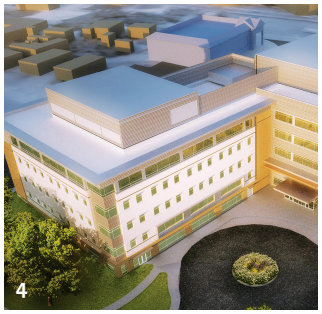
GBCI.org

Circle no. 191 or http://architect.hotims.com

→LOCAL MARKET

Manchester, N.H.

TEXT BY MARGOT CARMICHAEL LESTER



CHARTERED AS DERRYFIELD in 1751, a decade after New Hampshire separated from Massachusetts, the small town at the Amoskeag Falls on the Merrimack River was renamed in 1810 after Manchester, England, the first industrialized city. As a manufacturing center—it was home to, among other businesses, Mill No. 11, the largest cotton mill in the world—the city attracted immigrants from around the globe. Even today, 70 languages are spoken in the local school district.

Manchester's industrial roots remain evident in the city's Victorian-style mill buildings, but its economy has moved away from manufacturing. As the largest city north of Boston, and with a central location in northern New England, Manchester has become a regional healthcare and education hub. In 2009, CNNMoney.com ranked it the 13th best U.S. city to live and launch a business in, and *Kiplinger* named it the nation's second-most-tax-friendly city.

The recession has slowed development somewhat, but for the most part, the city has fared well during the downturn. "I think it is in part due to our [economic] diversity and Yankee conservatism," says Chris Wellington, a marketing specialist in the city's economic development office. Manchester officials urge public-private partnerships to fund large developments, keeping most projects—such as the multiphase River's Edge development (No. 4, above)—manageable and on track.

"In order for development to happen, it must be a project that can stand on its own financially," notes Barry Brensinger, CEO of local firm Lavallee Brensinger Architects. "That can be a good thing, but it's a challenge right now." With all levels of government cutting back, fewer projects are under way. But there also are fewer in financial trouble, meaning that "ManchVegas," as locals call it, has largely avoided the fate of Las Vegas and other cities that saw numerous speculative developments die on the vine. □

1–4: LAVALLE BRENSINGER ARCHITECTS; DENNIS MIRES, THE ARCHITECTS; ALTHEA HAROPULOS PHOTOGRAPHER; CUBE 3 STUDIO

1. Hillsborough County North Superior Court
ARCHITECT: Lavallee Brensinger Architects, Manchester, N.H. **COMPLETION:** 2011. **BRIEF:** $13.7 million expansion and renovation of existing building to current court standards; LEED Silver status pending.

2. New Hampshire Institute of Art
ARCHITECT: Dennis Mires, The Architects, Manchester. **COMPLETION:** 2009. **BRIEF:** $7.3 million rehab of city's first high school (ca. 1891) includes dormitory and teaching spaces, geothermal HVAC, rainwater harvesting, and vegetated roof.

3. Pandora Mill
ARCHITECT: John S. Jordan Design, Canterbury, N.H. **COMPLETION:** 2010. **BRIEF:** $11 million redevelopment of a historic mill into a LEED Silver (pending) office building.

4. River's Edge
ARCHITECT: Cube 3 Studio, Lawrence, Mass. **COMPLETION:** 2011. **BRIEF:** Project includes a 238,000-s.f. ambulatory care center and a 125,000-s.f. medical office building; phase 1: $105 million; remaining phases: $63.7 million.

POPULATION/EMPLOYMENT
2009 population: 110,000, with 73,389 employed in-town.

OFFICE MARKET
February 2010 vacancy: 17.7%; average asking rate: $16.84/s.f.

RESIDENTIAL MARKET
Median home sale price, December 2009: $208,000.

MARKET STRENGTHS
- Proximity to New England hub cities
- No sales or income tax
- Educated workforce

MARKET CONCERNS
- Depressed housing market
- Potential glut of commercial space
- General economic malaise

FORECAST
"Manchester has a lot of self-confidence, despite the times," says Lavallee Brensinger Architects' Barry Brensinger. "Improvements bring confidence in the future, and there's a general sense of optimism. A number of people are working on some interesting projects."

2009 winners

Enter the 2010 myMarvin Architect Challenge.

Win the chance to showcase your most inspired work.

This is your opportunity to inspire and be inspired. And to see how you measure up with your peers in the architectural community. Just submit your best work that includes Marvin Windows and Doors. Our esteemed judging panel will evaluate each submission on a number of attributes. If your entry is singled out for excellence, it will be showcased among the winning entries in this prestigious annual event.

Get details at
marvin.com/inspired

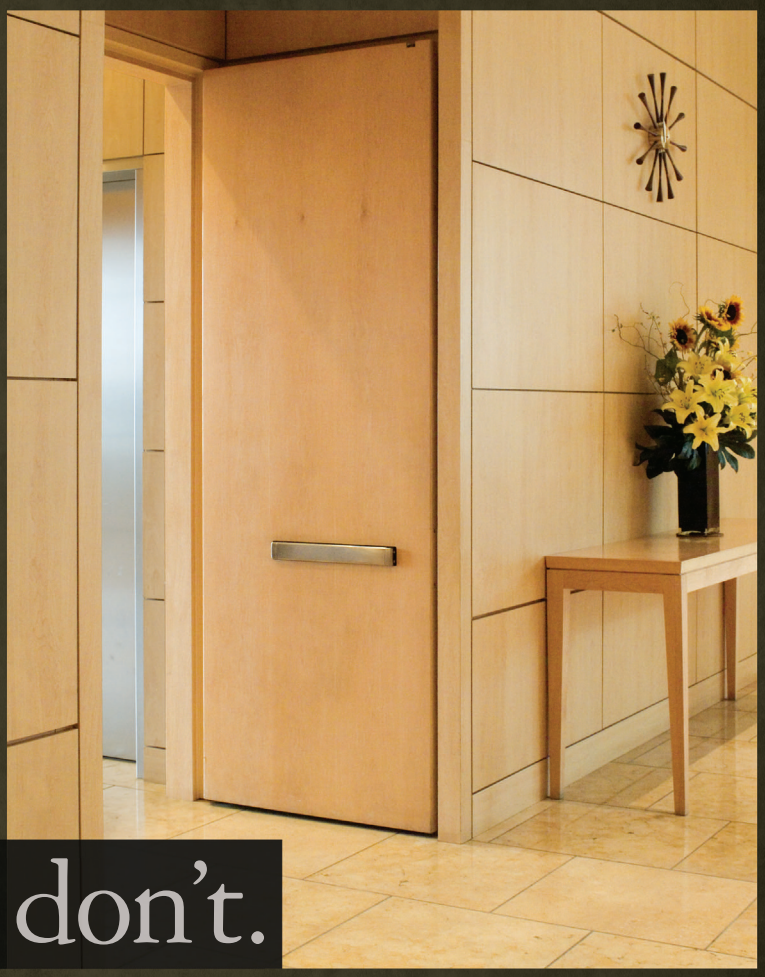
MARVIN Windows and Doors

Built around you.®

©2010 Marvin Windows and Doors. All rights reserved.
®Registered trademark of Marvin Windows and Doors.
1-800-236-9690

Circle no. 210 or http://architect.hotims.com

Now you see them.



Now you don't.

Whether you want fire doors to stand out or blend in, nothing complements your vision like The RITE Door.®

The RITE Door opens possibilities previously closed to typical fire doors. Thanks to an extensive selection of colors, textures and finishes, this integrated door system can seamlessly blend with your design or accentuate it. Each door also features technically perfect, pre-installed hardware that is so low profile it's hardly noticeable . . . unless you want it to be. **RiteDoor.com**

Adams Rite

ASSA ABLOY

ASSA ABLOY, the global leader in door opening solutions

Circle no. 257 or http://architect.hotims.com

TECHNOLOGY

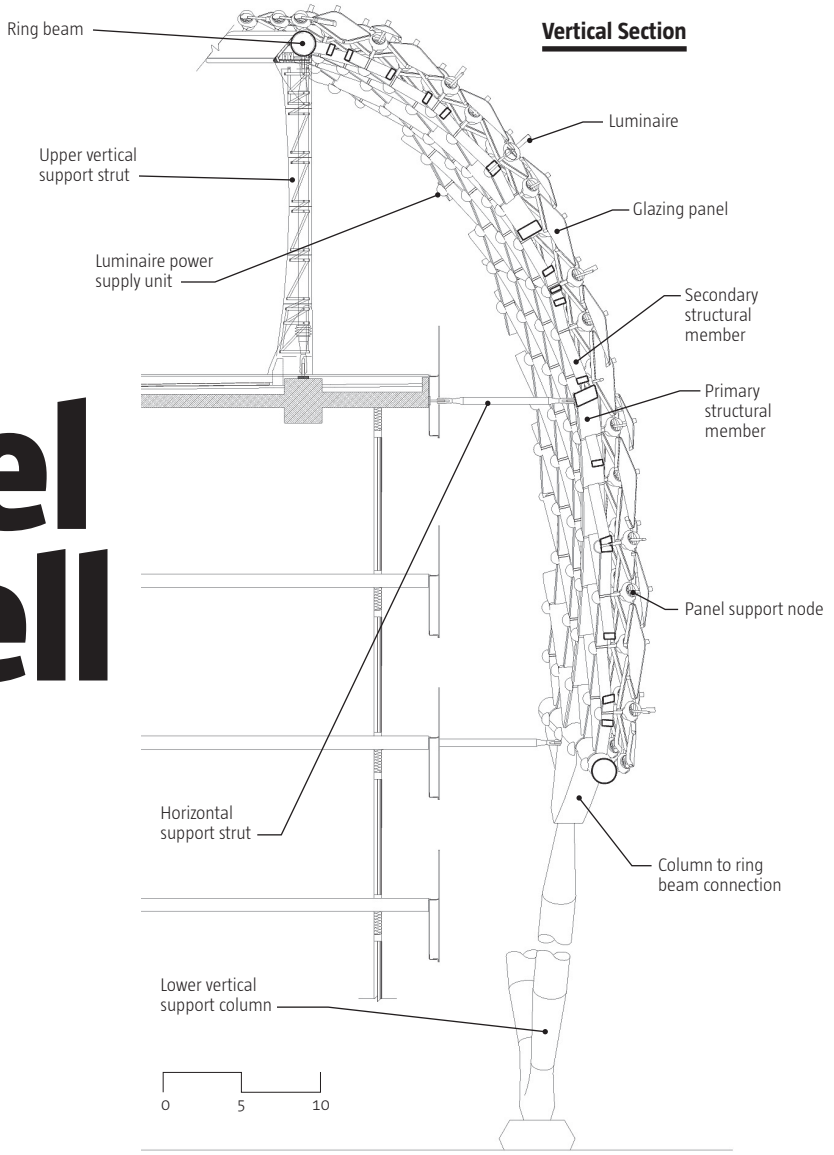
→DETAIL

Yas Hotel Grid Shell

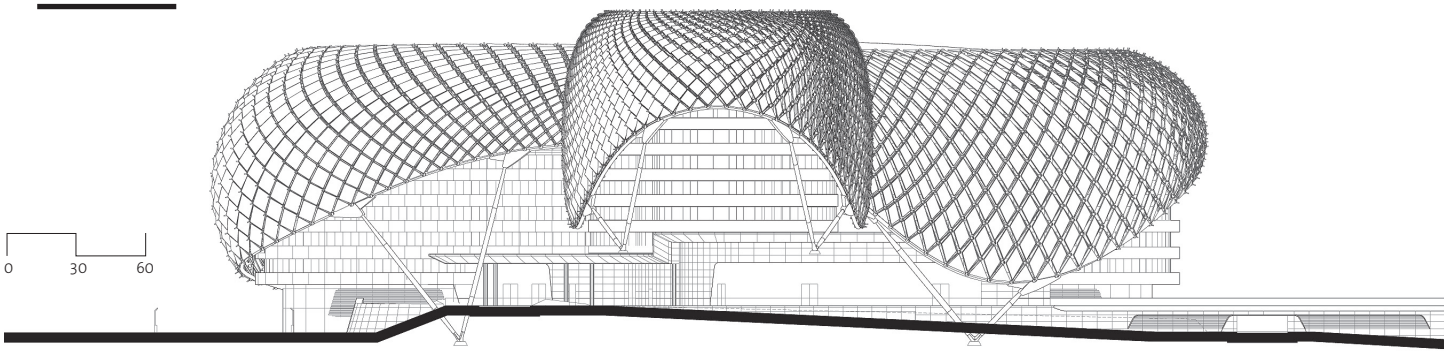
Architect: Asymptote Architecture
Location: Abu Dhabi, United Arab Emirates

TEXT BY GIDEON FINK SHAPIRO

Vertical Section



West Elevation



The Yas Hotel's grid shell comes alive at night, thanks to 5,800 programmable LED luminaires, one at each vertex of the latticework. The structure has an equal number of glass panels, each unique in size, shape, and angle of tilt. Frits in the panels reflect the LED light outward without affecting hotel occupants' visibility.

"FOR A LONG TIME, I wanted to see if I could make a building move fast," says Hani Rashid, co-principal with Lise Anne Couture of Asymptote Architecture. The firm's recently completed Yas Hotel, in Abu Dhabi, with its hovering carapace of glass scales, appears to flutter in the wind like a high-tech veil. Especially if you happen to be driving a racecar on the Formula 1 track that bisects the hotel.

The 500-room hotel, comprising a pair of elliptical, 12-story buildings, has two skins: The inner curtain wall is conventional, save for its airlinerlike acoustical insulation (which muffles the roar of the racecars), while the outer "grid shell" breaks the sunlight and generates a stack cooling effect. Visually, this undulating canopy creates an instant landmark.

Rashid says the meshwork of diamond-shaped panels evokes the tessellated patterns found in traditional Islamic architecture. It also embodies Asymptote's ongoing efforts to realize abstract mathematical models as physical structures. The New York firm's pursuit of "technological elegance"—Rashid's term for the harmony of speed, computation, and movement exemplified by sleek aircraft and car bodies—dates to its Fluxspace objects and architectural installations of the late 1990s and early 2000s.

In the original design proposal, all 5,800 glass panels, conceived as a responsive or intelligent skin, would have been able to pivot via electronic triggers. The idea, says Rashid, was to "create a shiver across the surface." Prohibitive costs required the glazing to remain stationary, but each panel is unique in size (ranging from 5 feet to 14 feet wide), shape, and angle of tilt. Optimizing the grid's corner angles with CATIA software, Asymptote collaborated with Gehry Technologies and the Vienna University of Technology as well as Arup project engineers to streamline the design and fabrication of this intricate exoskeleton.

Starting at dusk, the grid shell becomes a light source of its own. LED luminaires—5,800 of them, each containing 144 bulbs—mounted in the vertices of the lattice function in unison as a wraparound screen, turning the Yas Hotel into something of a lava lamp, or a phosphorescent sea creature. Frits in the glass panels reflect the light sources outward, according to Rashid, without compromising transparency from within.

Rashid and Couture are wary of comparisons with Las Vegas and its flashy color displays. Instead, Asymptote designed seven digital scripts for the lighting-control system based on more "ambient" and "ethereal" phenomena, such as slow-moving ocean waves. Nevertheless, the client, Aldar Properties, can reprogram the façade lighting as it sees fit—to play up holidays or racing events, for example.

"Veiling and draping is a local aesthetic," observes Rashid. But for the Yas Hotel, which straddles a racetrack and is sited by a marina, the local idiom also includes sculpted boat hulls and tapering car fuselages. This, for Asymptote, is context at its most congenial. □

ASYMPTOTE ARCHITECTURE/PHOTO COURTESY BJORN MOERMAN

© 2010 Masco Corporation of Indiana

THIS IS ONE VERY **RESPONSIVE** FAUCET.

Proximity™ Sensing Technology is the next generation in responsive hands-free functionality that contributes to water efficiency. This revolutionary technology transforms the entire faucet into a sensor, automatically responding when approached. There are no optics or infrared to maintain. All backed by the industry's best 5-year limited warranty. Another way that Delta is more than just a faucet.

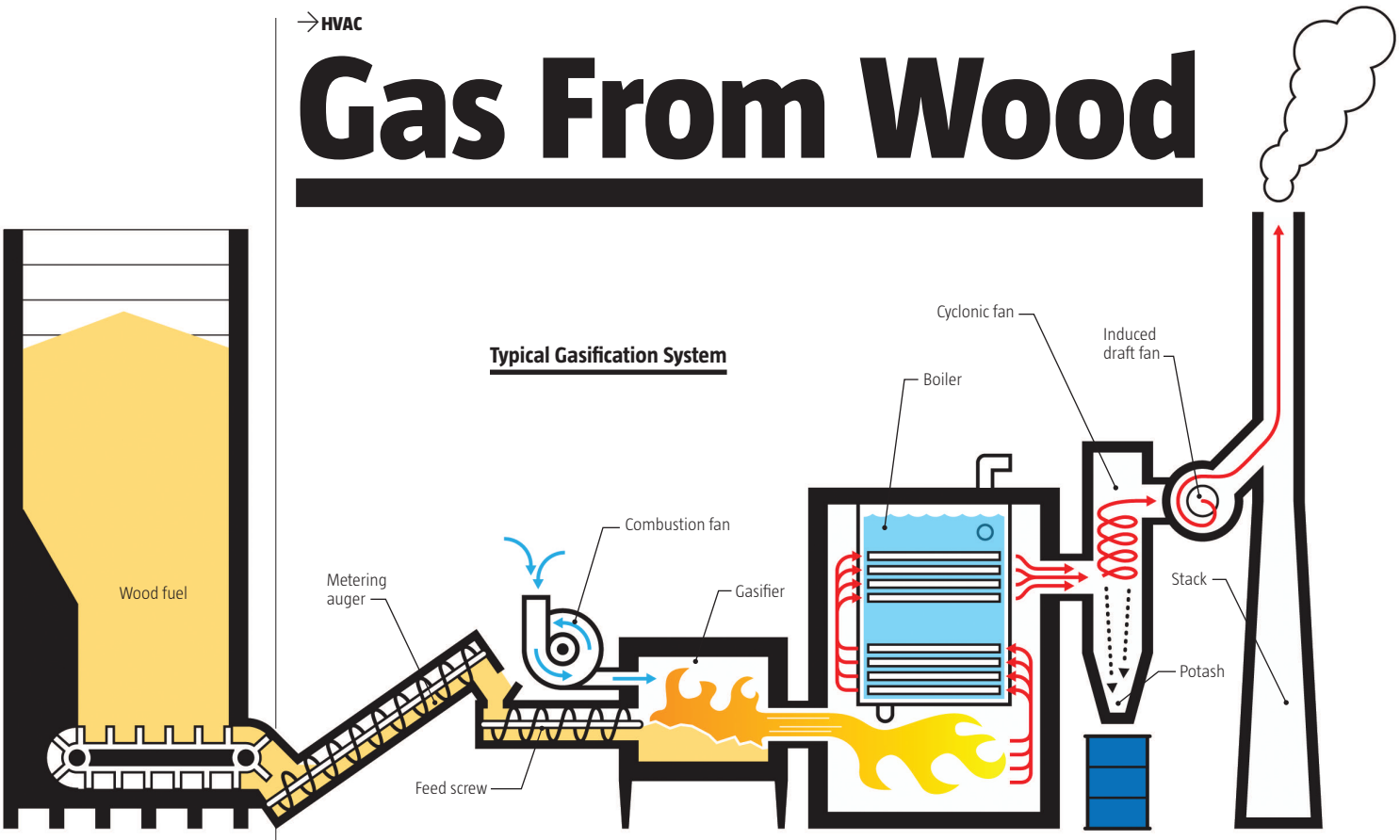
Visit deltafaucet.com/commercial/proximity
or deltafaucet.com/professionals

DELTA
see what Delta can do™

Circle no. 27 or http://architect.hotims.com

HVAC

Gas From Wood



TEXT BY BRADFORD MCKEE
ILLUSTRATION BY NIK SCHULZ

LOOKING FOR AN ENVIRONMENTALLY FRIENDLY WAY TO WARM YOUR BUILDINGS? A GASIFIER JUST MIGHT BE THE TICKET TO A CLEANER—AND CHEAPER—HEATING SYSTEM.

THE NEW HEATING SYSTEM housed in the neat little building at Hartford Central School, in Hartford, N.Y., works a lot like the standard natural-gas boilers in millions of American homes. Except it's different. Rather than using natural gas piped in from afar, the system makes its own gas—from wood. And it's a lot cheaper than the heating oil the school consumed exclusively until this past winter.

Gas from wood? Let's back up. A few years ago, voters in the Hartford School District, a rural area north of Albany, N.Y., voted for a nearly $16 million renovation and addition to their K–12 school. Part of the plan was to start using renewable plant or organic waste material, also known as biomass, for fuel and to cut consumption of fossil fuel. The district bosses asked their architects at CSArch Architecture/Construction Management of Albany to help figure out how.

"They didn't have to twist our arm," says Daniel Langer, a CSArch principal and the project's manager. There are several methods for turning wood or various crops or organic waste into fuel, but not all of them are right for every situation. The point is to find a fuel source that's relatively local and plentiful. The architects and district officials decided against burning cow manure or corn carcasses because they weren't impressed with the technology's ability to meet state emissions rules. "We eventually came across wood chips," Langer says.

Up in those northerly forests, there is a lot of wood to chip from paper mills and tree farms. The system the school district chose relies on what is called wood gasification. (The basic technology of gasification dates to the 1800s, when the fuel source was primarily coal.) Wood chips arrive from a local supplier and are put into a bunker inside the 2,000-square-foot plant. They're fed up an auger and into a "gasifier," a large oven in which the wood is burned at 2,000 F. At that temperature, the wood gives off flammable gases, which are drawn out by induction fans and combusted beneath a huge and otherwise conventional boiler full of water. From there, the water goes off in a closed loop of metal radiator

→

The Leader in Opening Glass Walls

Folding System SL60 Marlon Blackwell Architect

"NanaWall allows for a dynamic, elegant transition between inside and out."

Marlon Blackwell, Architect

Open the door to exhilaration

Enjoy the best of both worlds: a room with a view that opens to the outdoors yet gives you the peace of mind only a weather resistant NanaWall provides.

Circle no. 211 or http://architect.hotims.com

Showrooms Nationwide 800.873.5673 **nanawall.com**

NanaWall®
Grand Transformations

→

ARCHITECTS ARE INCREASINGLY BEING ASKED BY CLIENTS TO HELP SPECIFY BIOMASS FUEL SYSTEMS OF VARIOUS TYPES.

pipes to heat buildings and provide hot water.

The Hartford school's wood gasifier burns quite cleanly—nearly all particulates are removed from the exhaust by a cyclonic fan. "You basically see nothing" coming out of the flue, Langer says, "and we passed all our [environmental] requirements with a one-page document." All that remains of the wood is potash, which is distributed to local farms as fertilizer. And the clincher is the cost to the district, which typically paid $110,000 a year for heating oil and now plans to spend $40,000, at most, for wood chips (the gasifier consumes up to 36 tons of them per week in cold weather).

The school still uses some heating oil, however. State education rules require a fully redundant system alongside the gasifier. Also, the gasifier is too efficient—it works best at full throttle, so during "shoulder seasons" (late spring and early fall) Hartford Central turns it off and heats with oil.

Even when the gasifier isn't operating, it's always on view in its small building near the school's driveway, with large windows so people can see the process in action. "We decided to make it an attraction," says Tina Ceas, the architect at CSArch who designed the structure.

Architects are increasingly being asked by clients to help specify biomass fuel systems of various types. Nick Salmon, an architect at CTA Architects Engineers in Billings, Mont., has worked on nearly two dozen biomass boilers, many of them for schools. In Montana, the systems commonly burn wood removed from forests to reduce the threat of fire. And one, in Bismarck, N.D., uses "urban wood" collected during municipal tree trimming.

A major consideration for biomass burners is air quality—not all systems burn as cleanly as others, Salmon says. "Local air quality is always a concern, and determining what rules apply is important to what technology might work best." Gasifiers are among the cleanest, while other biomass systems require costly devices to scrub particulates from the exhaust. "We've learned the hard way that there are a wide variety of fuels" used in biomass energy systems, Salmon says.

To educate future engineers and others interested in biomass boilers, Minneapolis-based HGA Architects and Engineers recently completed a research and demonstration facility at the University of Minnesota's Morris campus that will burn corn stalks and leaves to heat 1.2 million square feet of school buildings. (The plant has not yet begun operating.) "They can source all the fuel this plant needs within a 10-mile radius" of campus, says HGA principal Doug Maust. An addition to the school's existing power plant, the facility received a 2009 Honor Award from AIA Minnesota.

For a 19th century technology that's gaining wider acceptance in a world increasingly focused on renewable energy, it's tough to beat a calling card like that. □

High Efficiency Bathroom Fixtures

- 47 WaterSense labeled high efficiency toilets (HET)
- All Caroma toilets are dual flush
- Average flush as low as 0.9 gallons per flush
- Virtually eliminate blockages and overflows with a trap through way nearly double the industry average
- Fast and easy installations, ideal for retrofits and new builds
- Case studies available on the Caroma website

World leader in dual flush toilet technology

Website: www.caromausa.com
Phone: 1 800 605 4218

Circle no. 259 or http://architect.hotims.com

caroma®

Your window to every building product imaginable.

BPM SELECT™

The Premier Building Product Search Engine

Enter your product term: Curtain Wall

Search

12,000 Building Product Manufacturers.

6 Million Targeted Web Pages.

Unlimited Inspiration.

AEC Solutions

delivered by

THE BLUE BOOK® Building & Construction NETWORK

www.bpmselect.com

Circle no. 262 or http://architect.hotims.com

HDI Railing Systems

Dream in color.

Ferric™ adds a splash of color to the simple elegance of steel and glass. Choose from stainless or eight shades of powder-coated steel to coordinate with your environment.

CIRCUM™

inox™

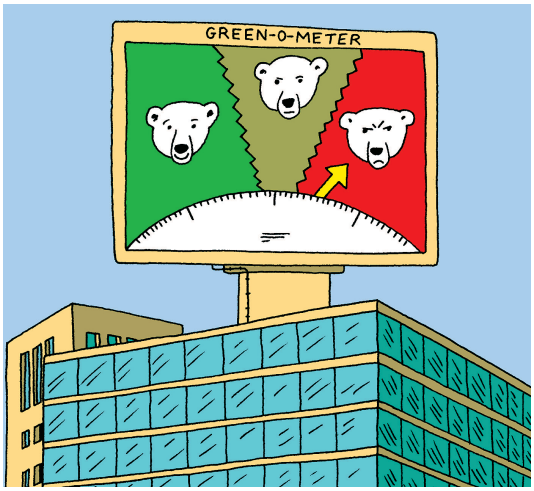
d line™

Ferric™

www.hdirailings.com P: 717-285-4088
email: info@hdirailings.com F: 717-285-5083
Circle no. 481 or http://architect.hotims.com

→ECO

Danger Signs



IF BUILDINGS' ENVIRONMENTAL IMPACT WERE CLEARER, WOULD WE DEMAND GREATER CHANGE?

TEXT BY LANCE HOSEY
ILLUSTRATION BY PETER ARKLE

"GLOBAL WARMING IS BAD, but it doesn't make us feel nauseated or angry or disgraced," wrote Harvard psychologist Daniel Gilbert in a 2006 *Los Angeles Times* op-ed piece. The environmental crisis doesn't conspicuously threaten us in the course of everyday life, so we're not as motivated to act, since we form stronger feelings around more-tangible things, like food and sex. "Moral emotions are the brain's call to action," Gilbert explains. "If climate change were caused by gay sex, or by the practice of eating kittens, millions of protesters would be massing in the streets."

Buildings produce 40 percent of U.S. greenhouse gas emissions and use 75 percent of our electricity. As a dramatic contributor to climate change, they pose a serious threat to public health, especially among children—who, according to the American Academy of Pediatrics, are particularly vulnerable to environmental hazards because their immune systems aren't fully developed. As a "call to action," harming kids certainly rivals eating kittens. Where's the outrage?

Since buildings' consumption isn't conspicuous, we can't actually witness them sucking down electrons and coughing up carbon. Consequently, according to a 2007 AIA poll, a mere 7 percent of Americans identify buildings as a top source of emissions. (Only aerosol cans, banned 30 years ago, ranked lower in the list of choices.) Architecture is like the picture of Dorian Gray: It can look beautiful in public, while somewhere out of sight its true soul withers and rots.

If the impact of architecture weren't hidden, how would the public react? A 2007 study at Arizona State University found that people use less electricity when they think their neighbors are doing the same. But what if we were told our neighbors were using more than their fair share? If overconsumers, like sex offenders, had to register with the authorities, would angry mobs take up torches and pitchforks?

With Energy Star's Portfolio Manager program, you can compare your building's performance with that of others across the country. Imagine requiring these stats to be publicized, even prominently displayed. Picture mandatory ticker-tape marquees with the number of BTUs burned (or children getting asthma, or species dying out, or forest acres shrinking) constantly ticking upward, like dollars on national debt clocks. Would PETA douse building façades with fake polar-bear blood?

What if buildings signaled their environmental damage with some kind of punitive eco-alarm system? Flip on too many lights, and you hear the screams of spotted owls over the PA. Turn up the heat too high, and the ductwork emits the stench of methane from legions of termites snacking on felled rain forest timber. Would we feel "nauseated" then?

If the evidence of damage from construction were visible, even visceral, would Gilbert's protesters mass in the streets then? What will it take for more than 7 percent of us to feel "angry or disgraced" about the sorry state of our buildings? □

Annual Design Review

CELEBRATING THE BEST IN AMERICAN ARCHITECTURE

ARCHITECT

ARCHITECT's Annual Design Review is a juried competition of the best U.S. architecture completed in the past 12 months. Judging is blind, to give every project an equal opportunity to win, and awards will be given in six project-type categories.

ELIGIBILITY

Projects must have been completed after June 30, 2009, and must have been built in the United States or designed by a U.S. firm.

PUBLICATION

Winners in each category (selected by a jury) will be published in the November 2010 issue of ARCHITECT.

CATEGORIES

WORK Office, Government, and Commercial Mixed-Use
PLAY Sports, Hospitality, and Retail
LIVE Multifamily Housing, Single-Family Housing, and Residential Mixed-Use
GROW Education, Science, and Healthcare
MOVE Infrastructure and Transportation
BOND Institutional, Cultural, and Religious

DEADLINES

July 9, 2010: regular submission deadline (postmark)
July 14, 2010: late submission deadline (postmark, additional fee required)

FEES

First entry: $250
Additional entries: $175 per entry
Late entries: $50 additional fee per entry by July 17

For more information, visit architectmagazine.com/adr or e-mail adr@architectmagazine.com.

→PRODUCTS

Kitchen & Bath

TEXT BY KIMBERLY R. GRIFFIN

Lenova's first undermounted **Bamboo Apron Front Kitchen Sink** has an equal double-bowl design and is made of fully matured Moso bamboo—chosen for its density, color, and sustainability—with SGS-certified safe binding adhesives and a water-resistant topcoat. A low-rise divider provides versatility while accommodating larger cookware items. The sink measures 32¾" by 21" by 9". • *lenovasinks.com* • Circle 100

The **Metaphor** basin from **Alape** has thin but sturdy walls and a sleek, cubic silhouette. At 4" tall and 14¾" deep, the surface-mount, glassed-steel basin is available in three widths—39⅜", 29½", and 19¾"—with optional towel bars. • *alape.com* • Circle 101

Microsoft

"We HAVE TO manage hundreds of employees...

AND connect cross-functional teams

AND share account information globally

AND automate key business processes

AND identify cross-sell opportunities around the world

AND provide a familiar solution everyone can use

AND Microsoft Dynamics® CRM helped us house all this in a single, scalable global system."

Microsoft Dynamics® CRM fits your company's structure and integrates information from different sources so all employees can provide better client service. It gives you a single system that can connect clients and opportunities across businesses.

To learn more about the efficiencies Microsoft Dynamics CRM can create for your business, go to **microsoftdynamics.com/professionalservices**

Circle no. 250 or http://architect.hotims.com

Microsoft Dynamics CRM

Because it's everybody's business

Jaclo's new **low-flow showerheads and handshowers** feature a regulator that reduces water consumption while maintaining strong pressure. According to the company, this lowers the average rate of gallons per minute from 2.5 to 1.75. The low-flow technology is now available in more than 30 showerhead and handshower models, including the new Cylindrico 5 (shown), and works with all available shower sprays and strengths: full rain, massage, full rain massage, mist, and mist full rain. • *jaclo.com* • Circle 102

The latest additions to the **Palomba Collection** from **Laufen** include ceramic washbasins in four sizes. Created by Italian designers Ludovica and Roberto Palomba, the smallest model, at 17.7" by 14.4", can come with or without a polished underside. The 25.6" by 19.7" and 23.6" by 19.7" basins offer the same option but with a ceramic pedestal or siphon cover. The fourth and largest basin, at 47.2" by 19.7", is designed for countertop installations. • *laufen.com* • Circle 103

YOU CAN APPRECIATE OUR INSULATED METAL PANELS FOR THEIR DESIGN FLEXIBILITY, OR SIMPLY FOR THEIR DESIGN.

After more than 40 years of being admired for outstanding insulation values, our insulated wall panels are now being recognized for more than just what's on the inside. Our panels give designers unprecedented design flexibility by fitting either horizontally or vertically, by varying module widths and offering pre-formed / radius corners. It's no wonder they're finding their way into some of the most beautiful buildings around. And, perhaps best of all, our panels stand the test of time, because only Metl-Span uses an innovative manufacturing process that eliminates blistering on the panel face. So next time, specify the building materials you can start admiring well before construction and keep on admiring for decades into the future. Specify Metl-Span insulated metal panels.

METL SPAN®
A BlueScope Steel Company

877.585.9969 metlspan.com

PIONEERING INSULATED METAL PANEL TECHNOLOGY

©2009 Metl-Span LLC - A BlueScope Steel Company. All rights reserved.

Circle no. 208 or http://architect.hotims.com

High Drama.

Tonight, “Ceiling” will be performed by a single panel of flexible Cambridge woven metal fabric, suspended in tension, perfectly flat.

The material’s reflectivity, semi-transparency and texture blend exquisitely with its supporting cast of materials – wood, fabric and concrete.

Plus, it performs as a mask for plumbing, HVAC and electrical, while maintaining ventilation and acoustic transparency.

Perfect role.

Project: Cultural Arts Center, Montgomery College

Location: Takoma Park, MD

Architect: SmithGroup, Washington, DC

LANDSCAPEINTERIORS™
Cladding, Space Sculpting, Ceilings

CAMBRIDGE ARCHITECTURAL

CAMBRIDGEARCHITECTURAL.COM

Circle no. 24 or http://architect.hotims.com

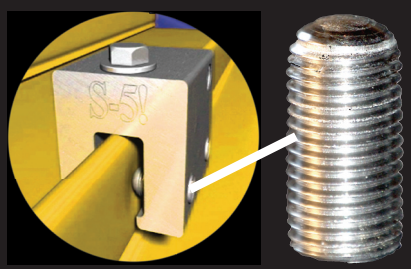
The **Undermounted Vanity Rectangular Lavatory** sink, shown here with the polished-chrome **Quadratta Lavatory Mixer** faucet, is the latest basin from Duratex brand **Deca**. The fire-clay sink delivers a streamlined, modern look well suited for hospitality environments. Measuring 23 1/4" long by 9 1/16" wide by 6 5/16" deep, the basin also features overflow prevention. • *deca-us.com* • Circle 104

Don't let anyone tell you it doesn't hurt!

Every hole you put in your standing seam metal roof voids your manufacturer's warranty and risks leaks.

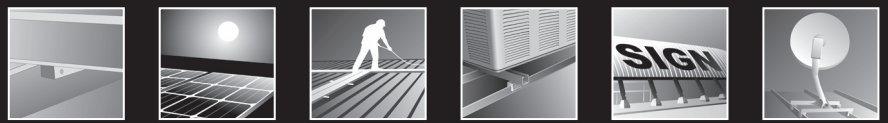
Only S-5!® utility attachment clamps, with their patented round-point setscrews, provide maximum strength without piercing or damaging the paneling. They install quickly and easily!

Attach almost anything to standing seam roofing without piercing the panel.



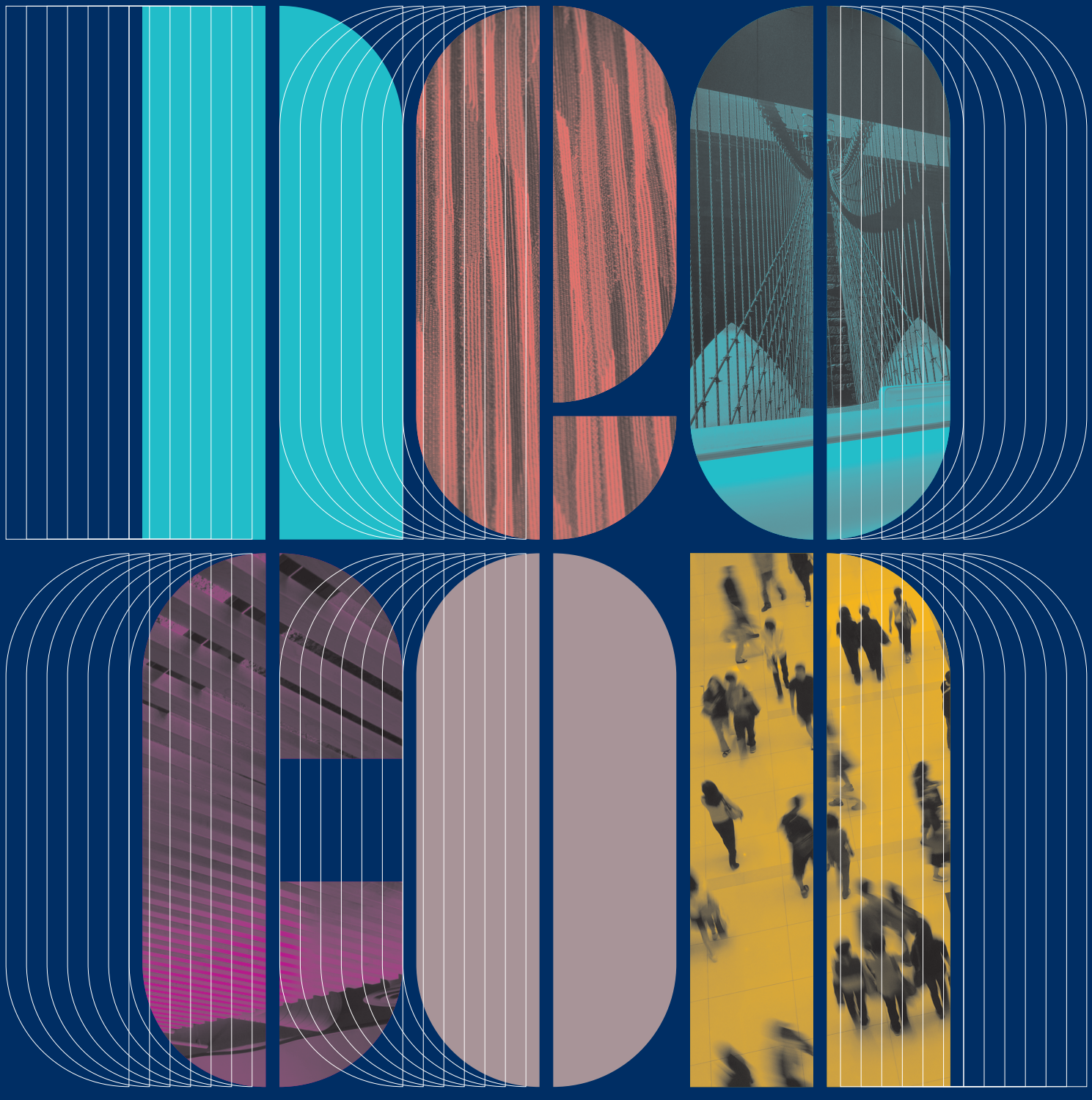
To learn more about the entire S-5!® line of attachment solutions and snow retention systems visit us at **www.S-5-clamps.com/ar** or call us at **888-825-3432**

Circle no. 489 or http://architect.hotims.com



S-5!®
The Right Way!

NeoCon®
World's Trade Fair 2010



M / T / W
JUNE 14–16 THE MERCHANDISE MART CHICAGO NEOCON.COM

PRODUCED BY MMPI

Circle no. 263 or http://architect.hotims.com

Abbaka's slim **Uni-Form** range hood has a 6"-tall canopy that houses an exhaust ventilator available in 800, 1,000, 1,200, and 1,400 cubic feet per minute power options. The hood comes in seven standard sizes, from 42" to 78" wide, with custom sizes also available. An in-hood commercial baffle filter system meets the demands of restaurant-grade ranges, while a variable-speed fan provides control, and mini halogen lamps offer task lighting. Available in wall-mount or island versions. • *abbaka.com* • Circle 105

Innovative Design *Breeds Innovation*

Bridges Center, Memphis, TN

ENERGY STAR PARTNER

You create, we get inspired. We innovate so you can get inspired. That's why MBCI continues to develop new products that support contemporary and sustainable design, meeting the environmental demands in place today with beauty that will last for years to come. Our recently introduced line of Eco-ficient™ insulated metal panels enhance the performance rating of modern facilities while our NuRoof® retrofit system is ideal for roof renovations. Put them together and incredible things can happen.

We believe that being truly innovative holds some risk. Boundaries are pushed. But, MBCI is with you. We have the best Weathertightness Warranty available. And, we have product engineers that can help turn your ideas into reality.

To learn more about the *Bridges Center* project featured above, our wide variety of Architectural CEUs, or how MBCI can help add beauty and long life to your project, visit www.mbci.com/arch.

Houston, TX (Corporate) 877-713-6224 | **Adel, GA** 888-446-6224 | **Atlanta, GA** 877-512-6224 | **Atwater, CA** 800-829-9324 | **Dallas, TX** 800-653-6224
Indianapolis, IN 800-735-6224 | **Lubbock, TX** 800-758-6224 | **Memphis, TN** 800-206-6224 | **Oklahoma City, OK** 800-597-6224 | **Omaha, NE** 800-458-6224
Phoenix, AZ 888-533-6224 | **Richmond, VA** 800-729-6224 | **Rome, NY** 800-559-6224 | **Salt Lake City, UT** 800-874-2404 | **San Antonio, TX** 800-598-6224

MBCI®
Metal Roof and Wall Systems

Circle no. 402 or http://architect.hotims.com

Quanta LED shines a new light.

Quanta – the only LED system with up, down illumination. As well as, dark sky friendly full cutoff wide downlight. An industry first, Quanta is perfect for highlighting architectural features or illuminating wide areas on building perimeters. Giving you more control of what you choose to illuminate, it's a big step forward in green lighting – and cutting energy costs. You'll also benefit from various lighting intensities, exceptional lumen efficiency and optional forward throw with onsite adjustability.
Adaptable to both indoors and outdoors, Quanta is available in various models and finishes.

Quanta LED. A whole new kind of light.

For more information, visit **luminis.com/quanta**

Circle no. 237 or http://architect.hotims.com

LUMINIS

ALL-IN-ONE

Everything's within reach.

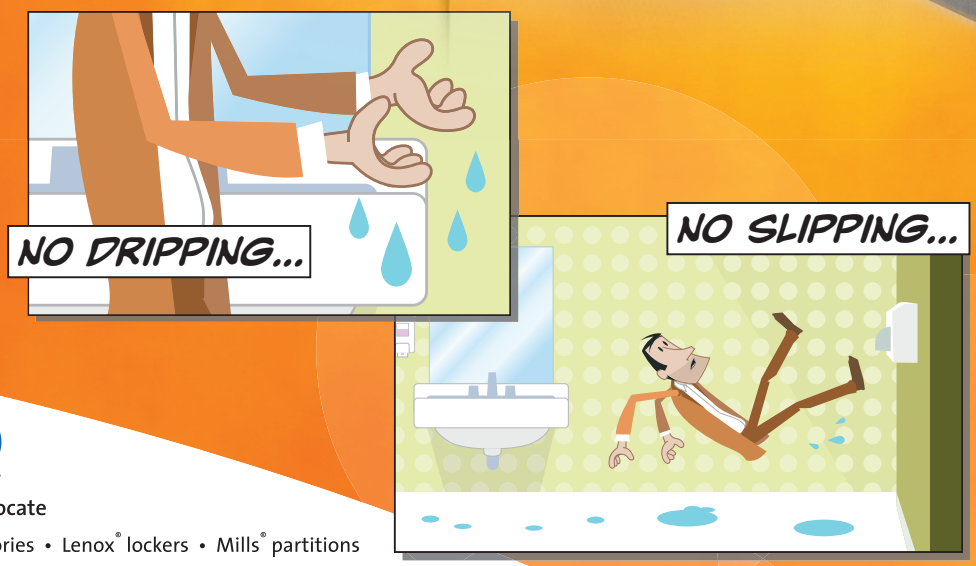
Advocate™

The first lavatory system to provide soap, water and hand drying all in one space.

Everything's within reach for the ultimate in convenience and comfort. It's a safer option too since the water doesn't drip on the floor as you walk to the dryer.

The Advocate™ features recycled materials, highly efficient, low-energy consumption hand dryer, 0.38 gpm faucet, and ndite® technology that powers the faucet without electricity or batteries.

Choose Bradley... and choose convenience, safety and conservation, with the all-in-one Advocate.



Bradley

800.BRADLEY • bradleycorp.com/advocate

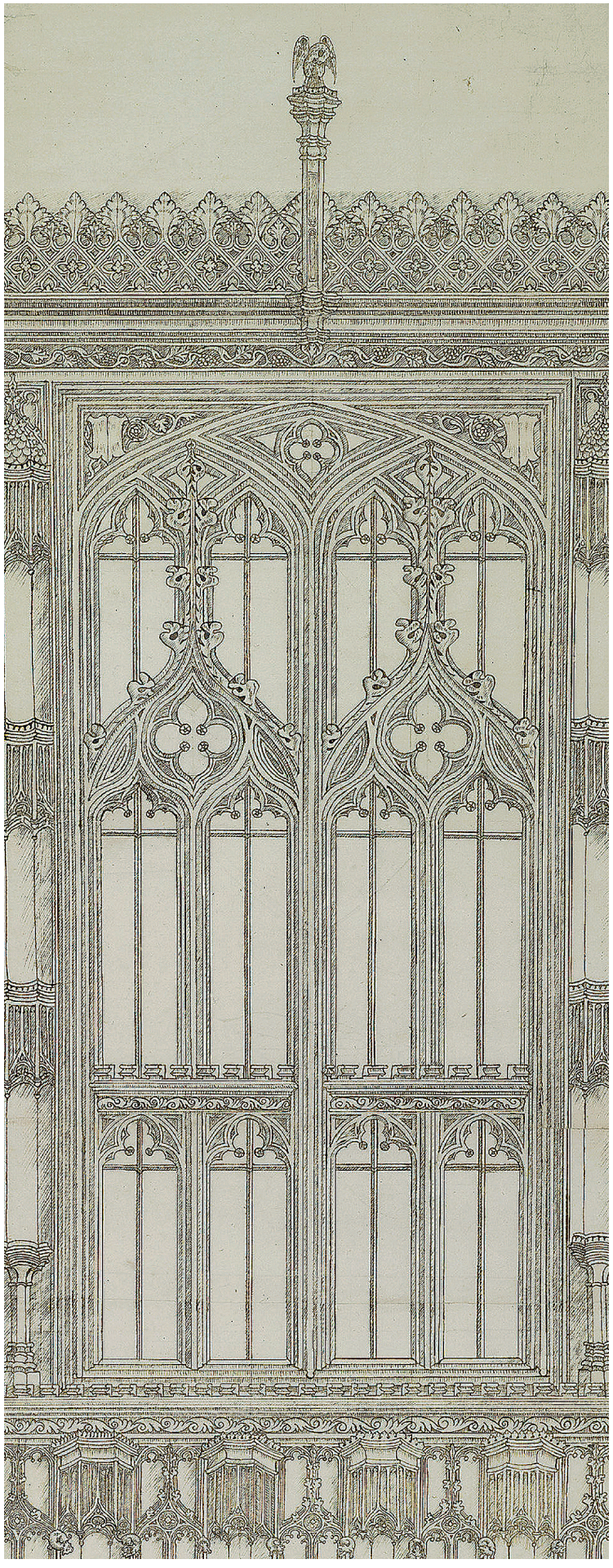
Plumbing fixtures • Washroom accessories • Lenox® lockers • Mills® partitions

Circle no. 213 or http://architect.hotims.com

CULTURE

→OBJECT

Roy McMakin designs furniture, objects, and environments that teeter brilliantly on the brink of the everyday. If only he could get as creative with his pricing. McMakin's collection of **Vases About Language & Redemption** (above), manufactured by Heath Ceramics, retails for $3,800. Fortunately, his new monograph, *Roy McMakin, When Is a Chair Not a Chair*, is much more affordable, and no less desirable. $65; Rizzoli

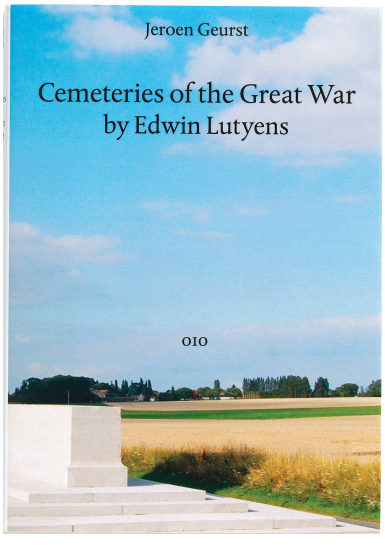


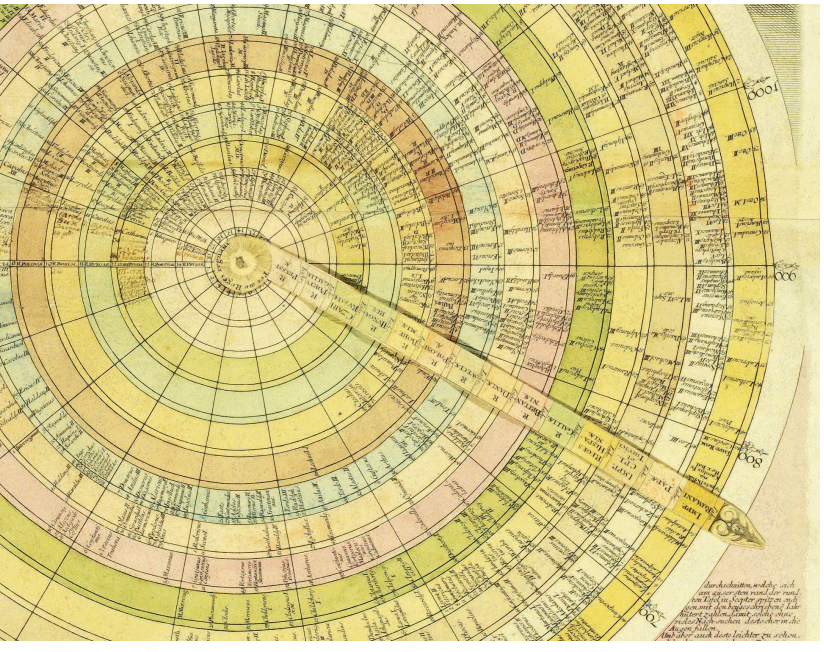
→EXHIBIT

From the U.K.'s oldest surviving building plan to Sir Christopher Wren's drawings for St. Paul's Cathedral in London, the exhibit **Compass and Rule: Architecture as Mathematical Practice in England, 1500–1750** at the Yale Center for British Art traces the parallel development of geometry and architectural rendering. If math's not your best subject, no worries. Instead, feast your eyes on William Vertue's 1518 elevation of a chapel at Winchester Cathedral (right). Through May 30. *ycba.yale.edu*

→BOOK

Edwin Lutyens' most famous building is probably the Viceroy's House in colonial New Delhi. But his most moving work may be the 140 cemeteries in Belgium and France that he designed for soldiers killed in World War I. ***Cemeteries of the Great War by Edwin Lutyens***, by Dutch architect Jeroen Geurst, includes plans, photographs, and directions for all of them. $53; 010 Publishers





→EXHIBIT

What happens to New York City when the polar ice caps have melted and the surface of the ocean starts rising to a threatening level? For the exhibition **Rising Currents: Projects for New York's Waterfront**, Museum of Modern Art curator Barry Bergdoll tasked five teams of designers—including Architecture Research Office (whose scheme is shown above), LTL Architects, Matthew Baird Architects, nArchitects, and SCAPE—to envision solutions for an ostensibly apocalyptic situation. Through Oct. 11. *moma.org*

→BOOK

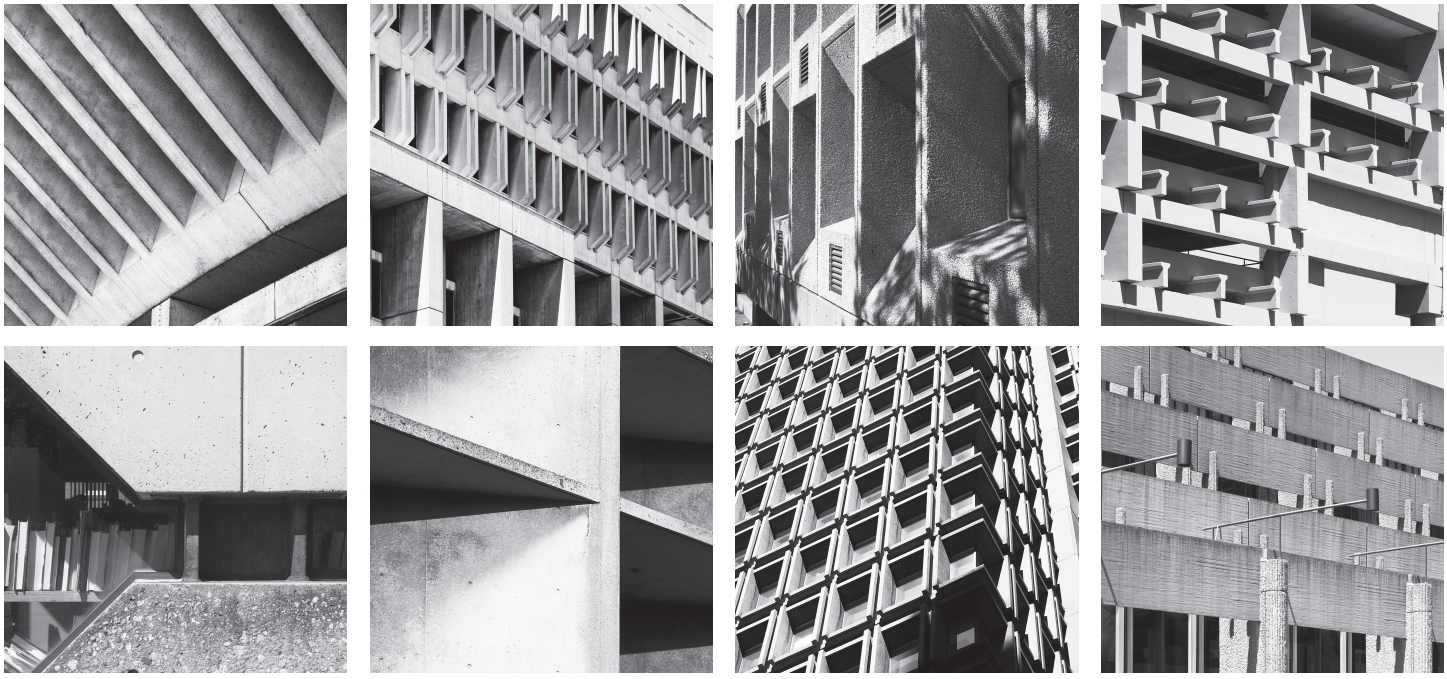
Cross a clock and a map, and what do you get? ***Cartographies of Time: A History of the Timeline*** has the answer. Authors Daniel Rosenberg and Anthony Grafton chart the surprisingly nonlinear course of graphic depictions of time. $50; Princeton Architectural Press

CLOCKWISE FROM TOP LEFT: COURTESY RIBA LIBRARY DRAWINGS COLLECTION; COURTESY ARCHITECTURE RESEARCH OFFICE AND DLANDSTUDIO; COURTESY PRINCETON ARCHITECTURAL PRESS; PREVIOUS PAGE: MARK WOODS

→CRIT

Tough Love: In Defense of Brutalism

THE CONCRETE ARCHITECTURE OF A FEW DECADES AGO, ONCE LAUDED, IS NOW MOSTLY VIEWED WITH SCORN. BEFORE WE TEAR IT DOWN, WE SHOULD CONSIDER WHAT WILL BE LOST.



TEXT BY MICHAEL KUBO, MARK PASNIK, AND CHRIS GRIMLEY

Boston-area concrete: (clockwise from top left) Christian Science Church Center; Boston City Hall; Madison Park High School; Government Center Garage; Government Services Center; State Street Bank; Carpenter Center for the Visual Arts, Harvard University; Boston Public Library, Charlestown Branch.

THERE WAS A TIME when architecture could be Heroic. It wasn't so long ago—half a century, give or take; the years before the decorated shed, the starchitect, the post-critical, the box and the blob, the supermodern, and all the rest. If today's architects have often leapfrogged back to the roots of modernity, it has been from the shoulders of the Cold War era, a time when designers struggled with architectural problems that grew from the directions set by Modernism's early masters.

After midcentury, Modernist U.S. architecture largely fell into two camps: glass-and-steel boxes (many of them corporate) that followed the legacy of the Miesian grid, or the so-called Brutalist concrete buildings (many of them civic) that were influenced by Le Corbusier's late work. While the laconic qualities of the former have gained wide acceptance, the general public—and even many architects—routinely disparages the latter's blunt physicality as socially and urbanistically aggressive.

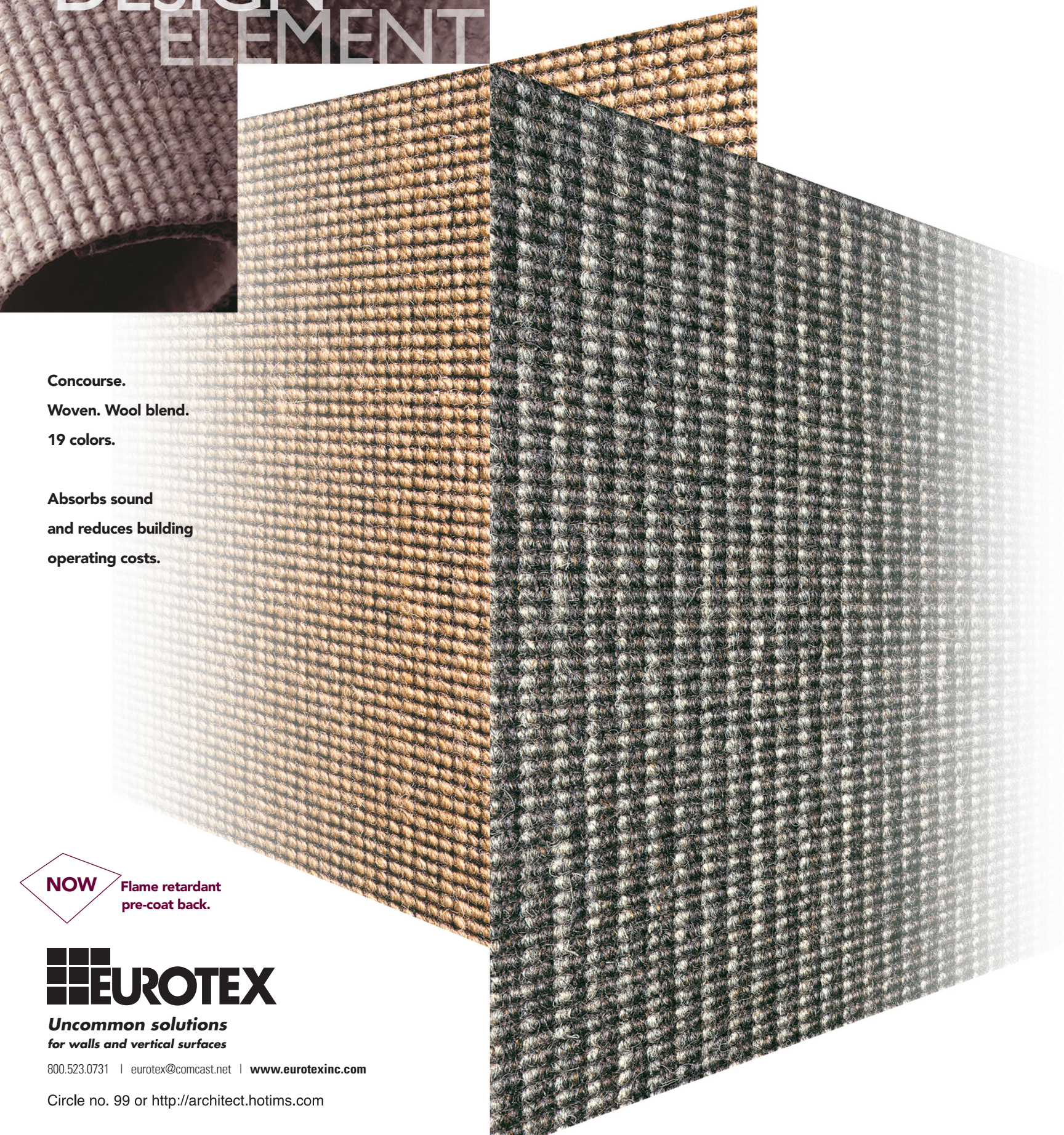
Today, major examples of Brutalism—or what the three of us prefer to call Heroic architecture—are under threat of demolition or disfigurement, including Boston City Hall; Washington, D.C.'s Third Church of Christ, Scientist; and works by Paul Rudolph, Marcel Breuer, and Eero Saarinen. We feel the need to defend these buildings, to insist on their quality and value to all of us today. Here are our reasons.

They're often misunderstood: "Brutalism" was a terrible label—an all-too-easy pejorative that suggests these buildings were designed with bad intentions. As the late critic Reyner Banham noted, at its best, Brutalism did have an ethic, one meant to reveal the messy realities of construction and building systems, and to forge a new honesty about architecture and its role within the postwar era's broader social and urban transformations. Brutalist buildings tried to be rugged and direct—more Marlboro Man than *Mad Men*—in opposition to the gray-suited slickness of glass-and-steel Modernism. Concrete,

MARK PASNIK/PINKCOMMA GALLERY

WALL CARPET

DESIGN ELEMENT



Concourse.
Woven. Wool blend.
19 colors.

Absorbs sound
and reduces building
operating costs.

NOW Flame retardant pre-coat back.

EUROTEX

Uncommon solutions
for walls and vertical surfaces

800.523.0731 | eurotex@comcast.net | **www.eurotexinc.com**

Circle no. 99 or http://architect.hotims.com

Boston-based **Michael Kubo**, **Mark Pasnik**, and **Chris Grimley** (l–r) curated the 2009 exhibit "Heroic"—about late-Modernist concrete buildings in the Boston area—at pinkcomma (overcommaunder.com/heroic). Kubo is pursuing a Ph.D. in history, theory, and criticism of architecture at the Massachusetts Institute of Technology. Pasnik and Grimley are the gallery's directors and principals of the architecture firm over,under.

the style's preferred material, was used to create dramatic forms that were singular rather than generic, sculpted and heavy rather than thin and light, and, frequently, civic and institutional rather than corporate. It is for their ambitions that we label these buildings Heroic.

They're examples of an era's urban ideals: Heroic architecture represents a different cultural and political context. At the time they were built, these buildings were called authentic, noble, dignified—words that are hard to interpret today. They were authoritatively civic in the time of Kennedy-era optimism and the Great Society, before U.S. attitudes toward the public realm changed so dramatically that it has become hard to evaluate the aesthetics on their original terms. What was once regarded as positively monumental is now seen as bureaucratic, overbearing. Through their very durability, Heroic buildings remind us of our changing attitudes, for better and for worse.

They're important parts of our built heritage: Cultures and tastes change. Just as New York's Penn Station, originally lauded, was later seen as outmoded and then, tragically, demolished, many Heroic buildings have gone from praise to vilification in a generation. Why repeat the cycle of destroying what we might appreciate with a longer historical lens? Moreover, today's criticisms of Heroic structures often lie less with their architecture than with their connection to the troubled legacy of urban renewal, something better remedied by sensitive urban design than by further demolition and rebuilding. Cities should be layered with the intentions of different eras; erasure is nearly always a mistake.

Heroic buildings can be tough to love. Fairly or not, many are perceived as hubristic or cold—sometimes literally—or overly aggressive. They're not always cozy. And not all examples are of equal value or quality. But the best ones deserve careful re-evaluation. We believe that sensitive modifications could help make them loved once again.

The most meaningful examples of Heroic architecture have a richness and vitality that reward close study. I.M. Pei's Christian Science Church Center in Boston, for instance, shows how, with proper care and stewardship, these buildings can be wonderful participants in an active urban setting. At their best, they are powerful monuments of an ethic inspired by, but critical of, its Modernist past—an ethic that sought authenticity for its time and embraced the future wholeheartedly. It would be a shame if such qualities fell victim to a throwaway culture before these buildings hit their second stride. By learning to appreciate them, maybe, just maybe, we can be Heroic again. □

Woven Wire Fabric

Projects include multi-story wire mesh draperies for hotels, auditoriums, and casinos; curved dividers for visual merchandising; window treatments for private homes; safety screening for industrial settings; sculptural forms for urban gardens; decorative interior/exterior wall coverings for buildings and parking garages; aviary round weave screening for animal habitats, and see-through appealing barriers for commercial security. Whatever the application, let us help you realize your creative vision.

www.cascadecoil.com | 800-999-2645

Circle no. 81 or http://architect.hotims.com

ARCAT BIM LIBRARY

Manufacturer and Generic Objects and Systems

ARCAT®

www.arcat.com

Circle no. 430 or http://architect.hotims.com

→SCREEN GRAB

architizer.com

NETWORKING FOR ARCHITECTS, MINUS THE IDLE CHATTER.

TEXT BY JOHN GENDALL
PHOTO BY SIOUX NESI

"Ultimately, our mission is to push architectural work out into the world," says Architizer's **Marc Kushner** (right), seen here with fellow co-founders **Benjamin Prosky** (left) and **Matthias Hollwich.** (Not pictured: Alex Diehl.)

FOR ARCHITECTS LOOKING to network online in a serious way, the options have been limited. LinkedIn consigns designers to text-based profiles, making it difficult to convey a firm's essence. Pictures can be posted on Twitter and Facebook, but they vie with updates about what someone had for breakfast. Now, with Architizer.com, the landscape is radically different. The image-based site gives architects a platform to connect with other designers and, its founders hope, an interested public.

Architizer began in late 2009 with 25 firms; it has since grown into a global network of, at press time, 1,300 firms and 7,000 individuals, and it gets an impressive 100,000 unique visitors per month. "We've been a lot busier than we [expected]," admits co-founder Marc Kushner. The founders—Kushner, Matthias Hollwich, Alex Diehl, and Benjamin Prosky—are otherwise employed: Kushner and Hollwich run HWKN, a New York architecture firm; Diehl is CEO of media agency KreativeKonzeption, in Berlin; and Prosky directs special events and external affairs at the Columbia Graduate School of Architecture, Preservation, and Planning. The Architizer idea is a few years old, but the quartet saw a chance to make it a reality in the recession with pooled resources and sweat equity. These days, they juggle work schedules with the site's growing demands. Prosky says they've been successful in raising capital for site improvements aimed at audience growth.

Regular competitions are among the new features. An initial one, which re-examined losing designs from 2009 competitions, generated substantial Web traffic. "If your work is on Architizer, you don't really even need a site," says Diehl, who optimized the search function. A project that sits dormant on a firm's site may, on Architizer, get hundreds of views in a day; if it's a featured project, bump that figure to 4,000. "Once it's out there," Kushner says, "the work takes on a life of its own." □

LINKS

greenguard.org
The Greenguard Environmental Institute—whose certification programs maintain air-quality standards for building materials and products—recently overhauled its website. Among the upgrades is a more user-friendly product guide, which now allows searches by keyword, product type, manufacturer, sustainability credits, and certification type.

plantingacorns.com
Written by Merill Stewart, co-founder of the Birmingham, Ala., commercial construction company Stewart Perry, Planting Acorns combines industry insights with informal business philosophy, all centered on the idea that people—whether employees, business partners, or clients—are the ultimate asset.

paris-26-gigapixels.com
A project by two French photographers and Kolor, developer of the photo-stitching software Autopano: 2,346 pics of the Paris skyline assembled into a single image 354,159 pixels wide by 75,570 pixels tall.

8bitnyc.com
At the other end of the digital spectrum, so to speak, is a searchable map of New York City rendered in the "8-bit" format, which will be familiar to fans of '80s-era computer games. The mapmaker, Brett Camper, also created one for Austin, Texas—just in time for the SXSW festival—and is soliciting donations to help fund the development of 15 more.

aestheticsofjoy.com
Designer Ingrid Fetell—see her work at ingridfetell.com—tries to answer the question: How does design contribute to, or detract from, our feelings of happiness?

2010book.tumblr.com
Dan Sinker, a journalism professor at Columbia College Chicago, revisits a children's book, *2010: Living in the Future*, published in 1972 by science fiction writer Geoffrey Hoyle. How does the real 2010 compare with the world envisioned by Hoyle and his illustrator, Alasdair Anderson? Apart from the jumpsuits everyone is supposed to be wearing and generally utopian designs and attitudes, we're not all that far off.

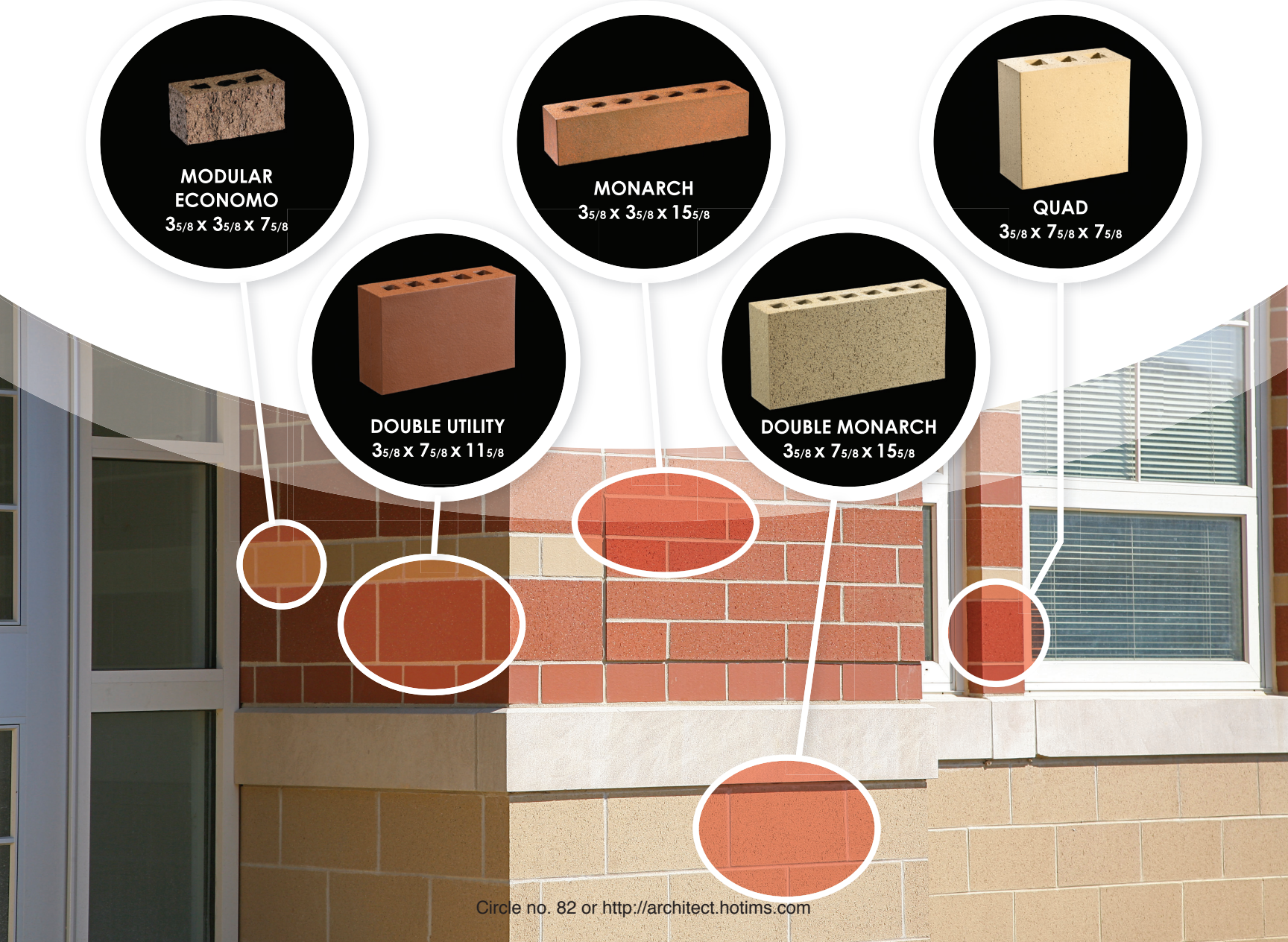
BELDEN
THE BELDEN BRICK COMPANY

Canton, Ohio / (330) 456-0031
www.beldenbrick.com
An ISO 9001:2000 Registered
Quality Management System

Sizeable Advantages.

Lower In-Wall Costs / Reduced Labor and Material Costs / Faster Construction
Full Range of Patterns / Colors and Sizes / Energy Efficient / Enduring Beauty and Strength / Easy Upkeep

– Belden Brick meets the specifications for ASTM C 216-06; Types FBX, FBS & FBA; Grade SW –



Circle no. 82 or http://architect.hotims.com

2010 SALARY SURVEY Let's get right to it: For most architects, 2009 was an *annus horibilis*, a year so rotten that previous bad years start to look sunny by comparison. But we're not the ones saying so—you are, in the comments that ARCHITECT readers submitted as part of our annual salary survey. "Potential clients are now interviewing many architects just to get the lowest price. Very tough and strange times," wrote one respondent. "We have been in the red for 14 months," another architect wrote. "If [there is not] a dramatic recovery very soon, we will be out of business." Many principals and owners report that they've taken pay cuts of 10 percent or more just to keep their firms afloat. One owner complained, "My gross income for 2009 was $7,404. I call this VERY GROSS INCOME."

In January, we polled nearly 1,300 readers of this magazine, drawn at random from our subscriber lists. (For every completed survey, we promised to donate $2 to the nonprofit Public Architecture.) We did a screening to eliminate all respondents except those working at architecture firms in the United States with a portfolio of at least 50 percent nonresidential architecture. Our final respondent pool of 1,001 people spans all job titles and experience levels in the profession,

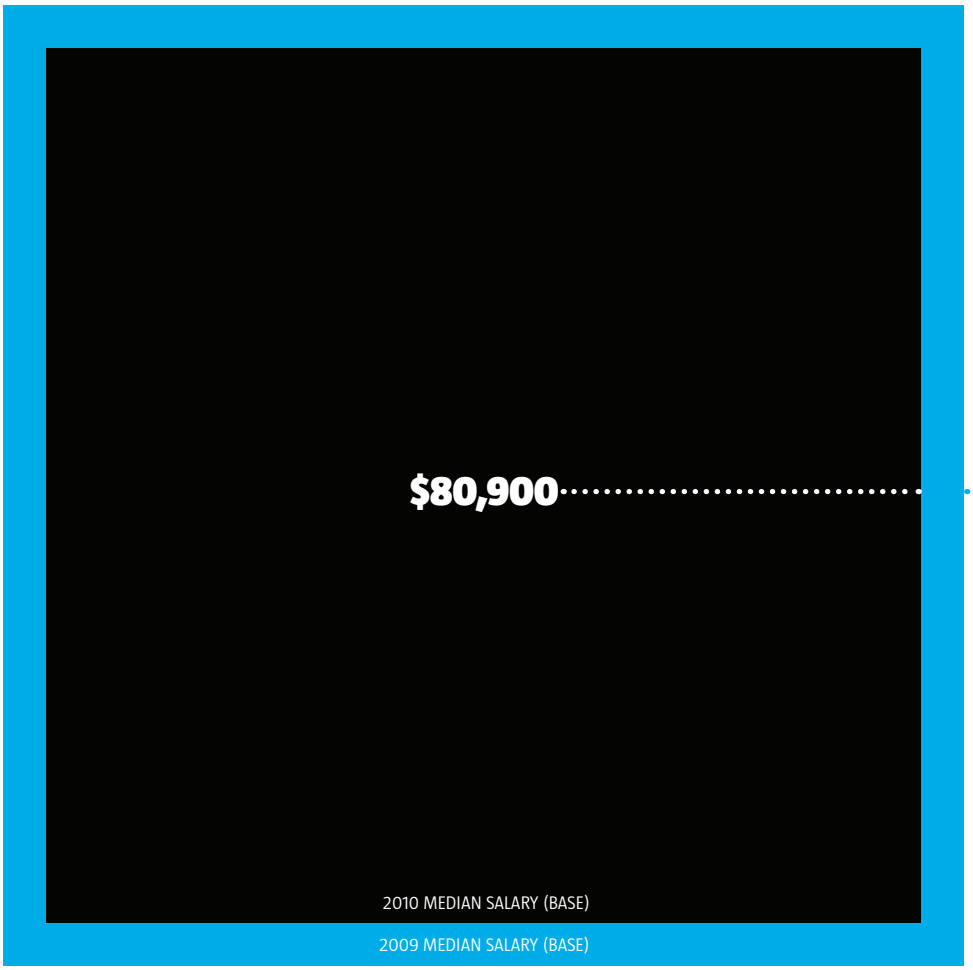
LESS = THE NEW MORE

although management-level architects and sole practitioners dominate: 77 percent gave their title as principal/partner/owner or president/vice-president/C-title, and the median age was 51.8. (Younger architects should keep this in mind, if the figures here don't square with their experience.)

We asked Kermit Baker, chief economist of the AIA, to interpret our findings. He warns that conclusions are difficult to draw in a period of unprecedented volatility. "Our estimates are that 25 percent of positions at architecture firms were lost since the middle of 2008," Baker says. "The finding is that those losses tend to be concentrated at the lower end of the salary spectrum." In our Median Salary by Firm Size chart (p. 56), he points out, an apparent uptick in salaries at midsized and large firms might signify a compositional change, instead: A firm of 100 (which is likely to pay architects more than a firm of 50) would drop into the midsized category after a few layoffs, thereby pushing the median up.

With those caveats in mind, read on. And keep your fingers crossed for a better 2010.

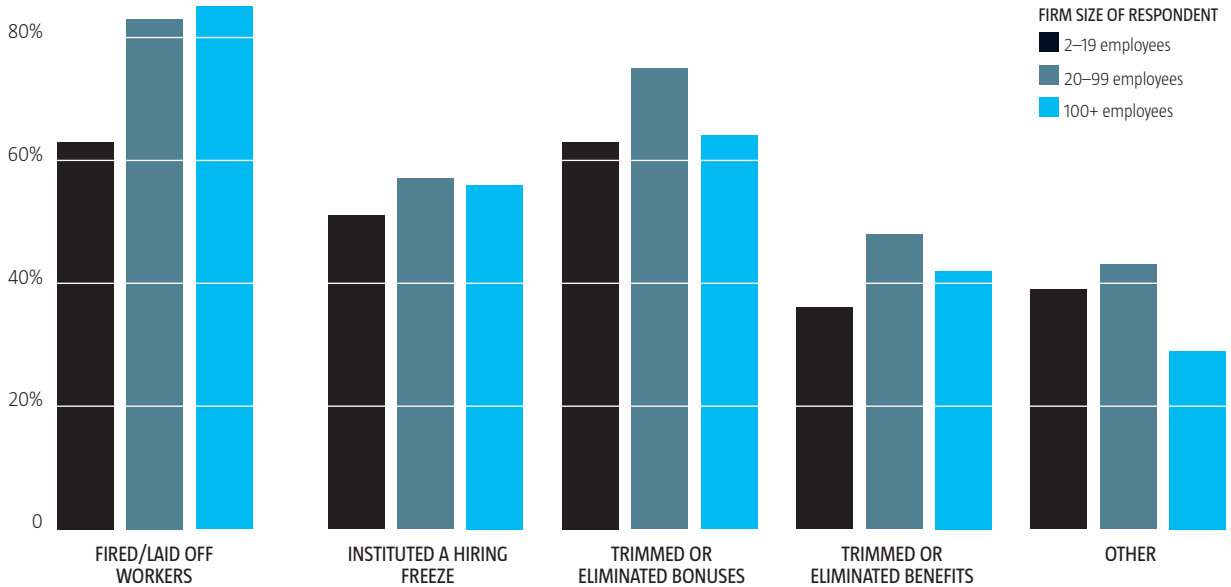
TEXT BY AMANDA KOLSON HURLEY
RESEARCH BY KARLIN ASSOCIATES
INFOGRAPHICS BY CATALOGTREE


$80,900
$88,800
2010 MEDIAN SALARY (BASE)
2009 MEDIAN SALARY (BASE)

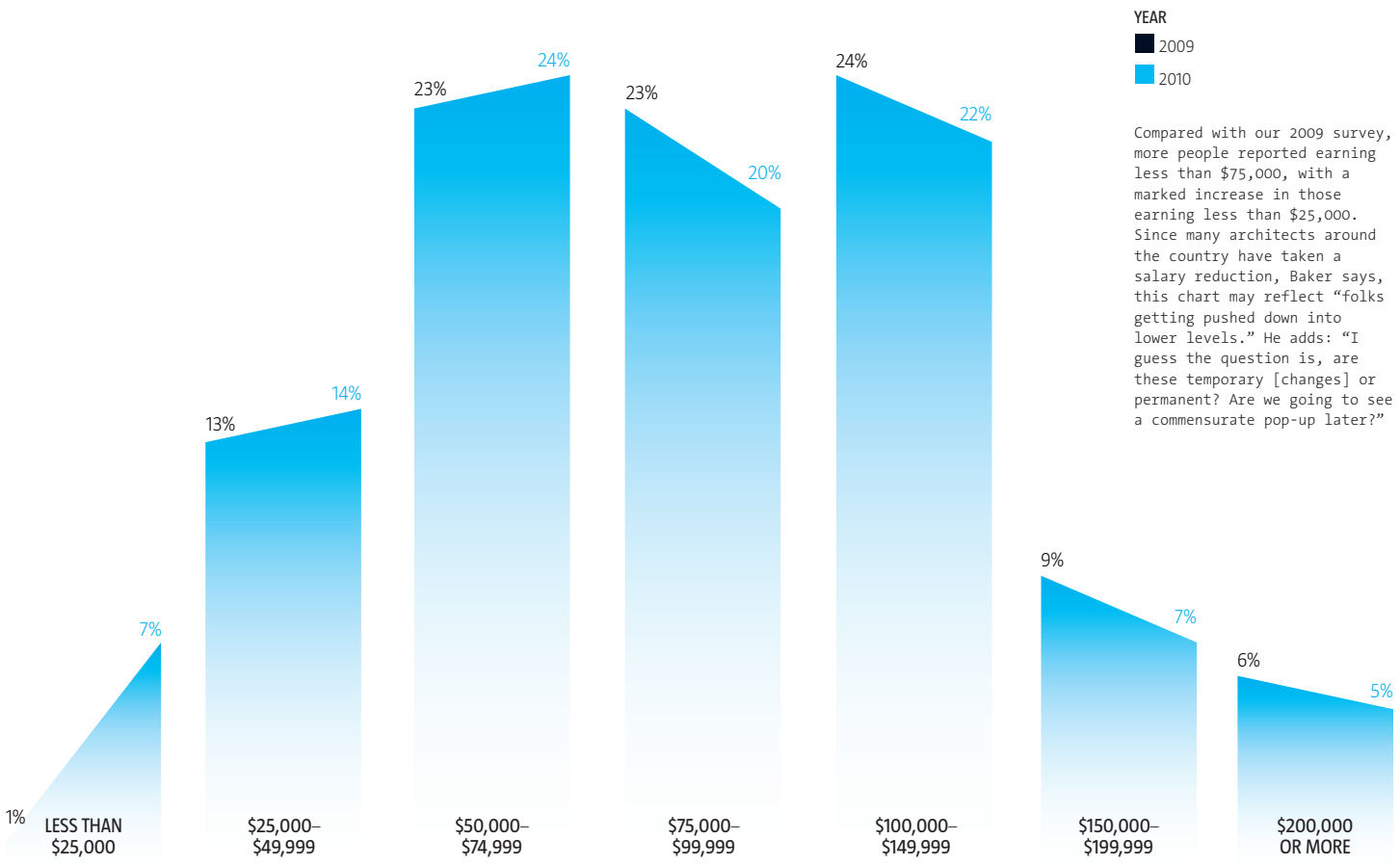
DID YOUR FIRM MAKE CHANGES LAST YEAR BECAUSE OF THE ECONOMY?

In this economy, it's a little surprising that nearly a third of firms *didn't* take any self-defensive measures. Downsizing may have been most prevalent at large firms; 85 percent of respondents at firms of 100 or more employees saw co-workers get laid off. Hiring freezes, reduction/elimination of benefits and bonuses, and other measures (such as a reduced work week, frozen or reduced salaries, and reduced IT spending) were common across the board, but slightly more common at midsized firms.

IF YES, WHAT CHANGES DID IT MAKE?



WHAT IS YOUR SALARY?

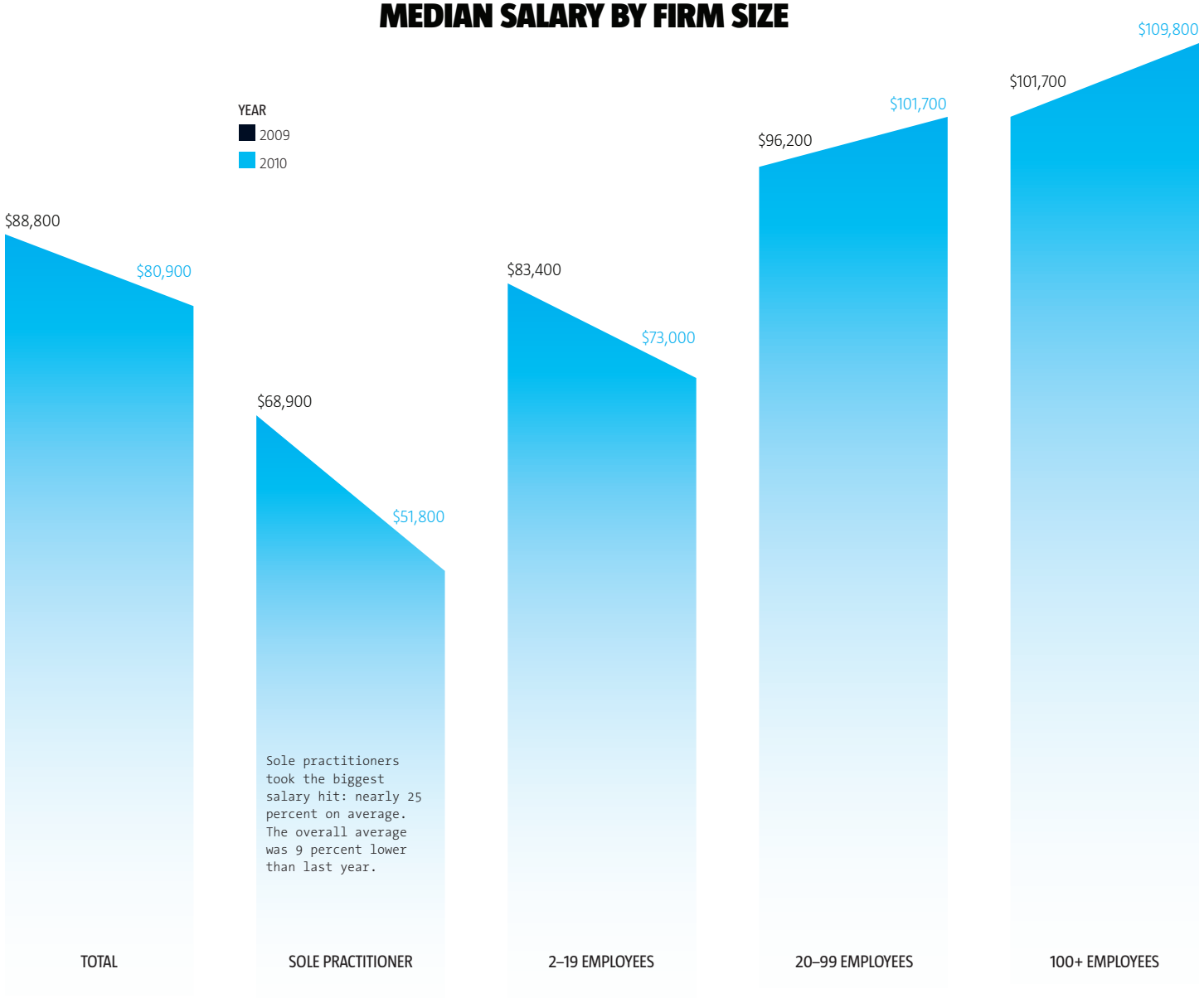


Compared with our 2009 survey, more people reported earning less than $75,000, with a marked increase in those earning less than $25,000. Since many architects around the country have taken a salary reduction, Baker says, this chart may reflect "folks getting pushed down into lower levels." He adds: "I guess the question is, are these temporary [changes] or permanent? Are we going to see a commensurate pop-up later?"

"MORE WORK AT LESS PAY HAS A LIMIT. I HOPE I FIND IT SOON."

—RESPONDENT #126

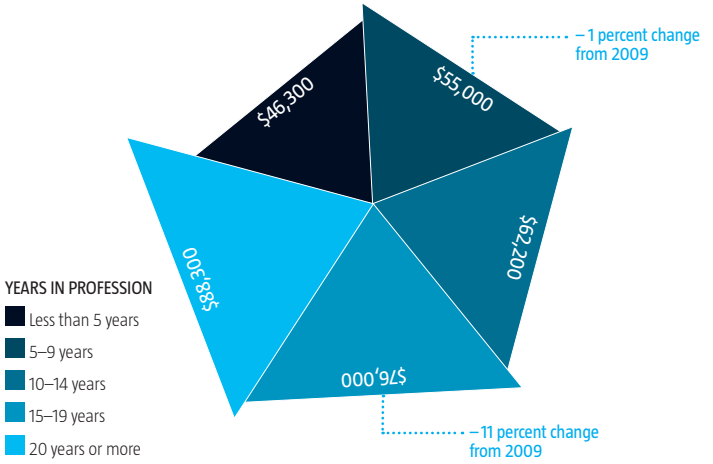
MEDIAN SALARY BY FIRM SIZE



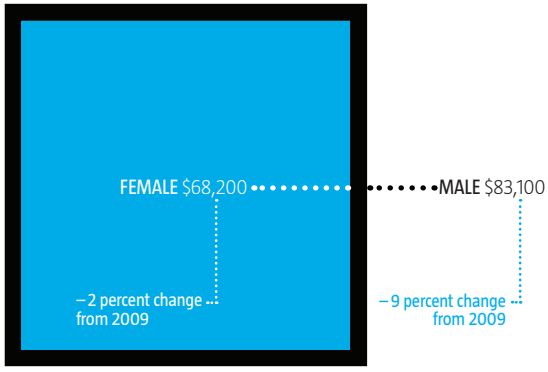
"THE DIFFICULTY OF RUNNING A SMALL FIRM INCREASES EVERY YEAR. IT'S COMPOUNDED IN HARD TIMES BY COMPETITION FROM LARGER FIRMS."

—RESPONDENT #68

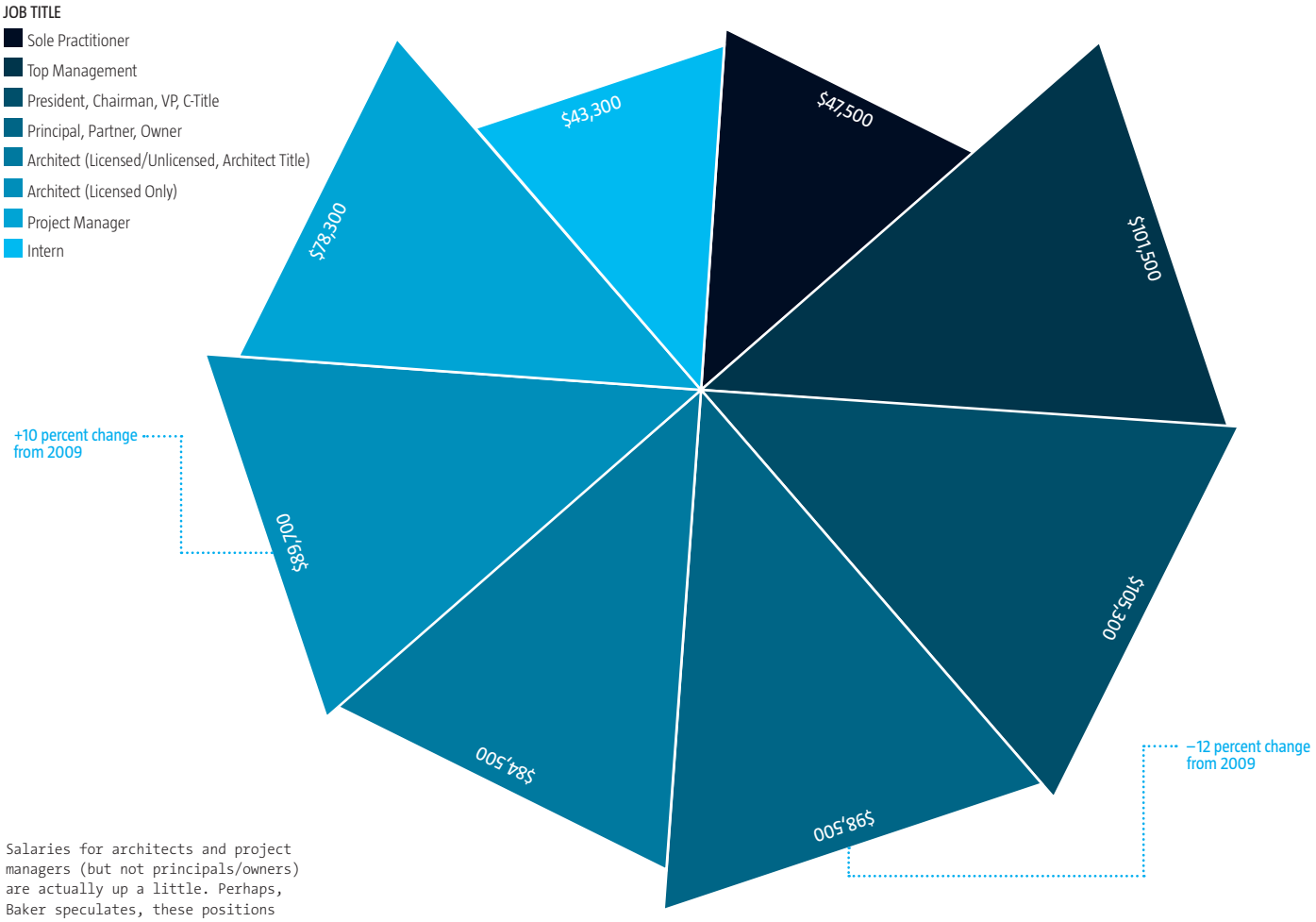
MEDIAN SALARY BY YEARS OF EXPERIENCE



MEDIAN SALARY BY GENDER

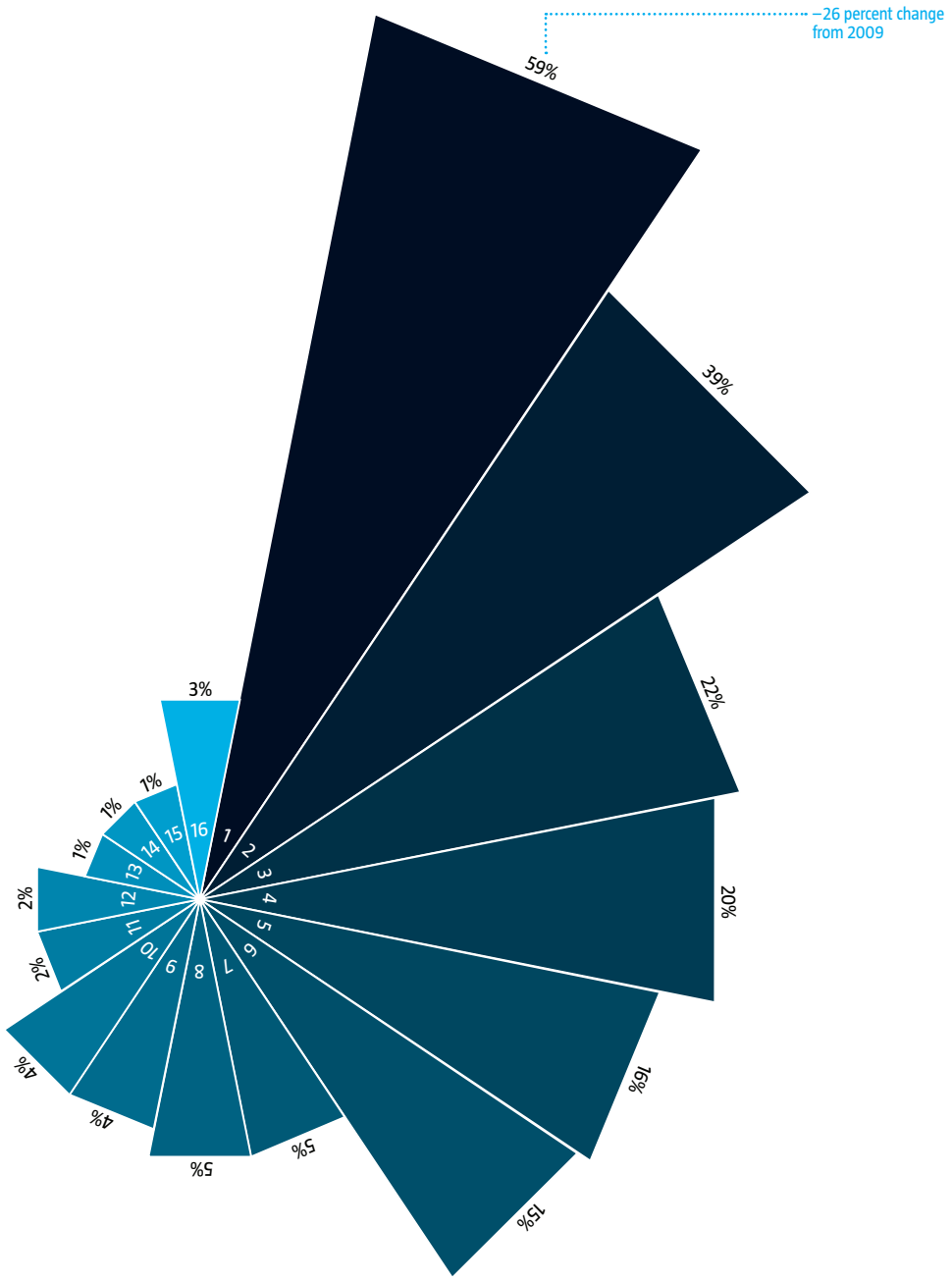


MEDIAN SALARY BY JOB TITLE



Salaries for architects and project managers (but not principals/owners) are actually up a little. Perhaps, Baker speculates, these positions were disproportionately cut from smaller firms, so those who reported might be concentrated in larger firms, which often pay more.

DID YOU GET A BONUS?



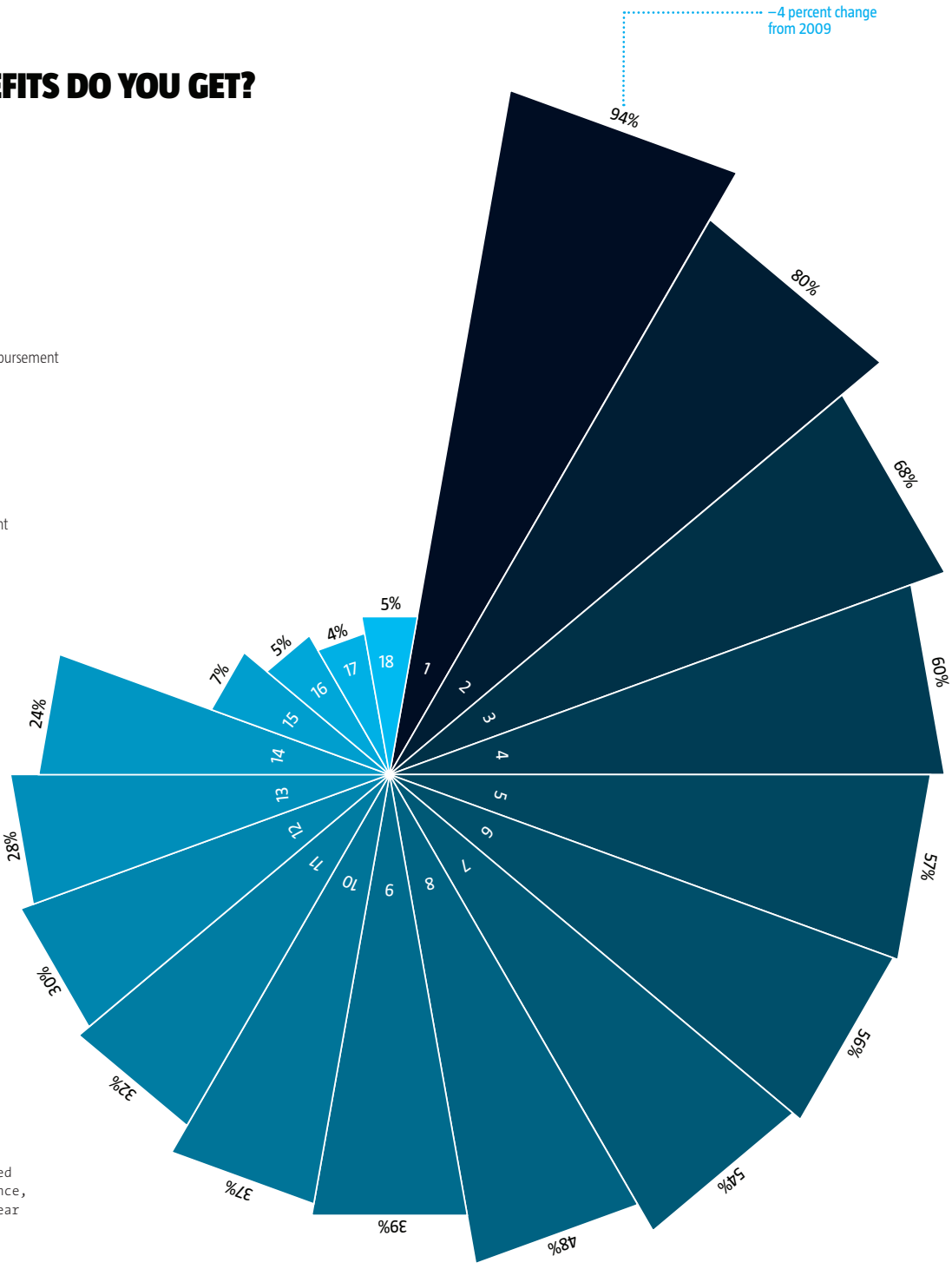
BONUSES

1. **Any of these**
2. Performance
3. Christmas
4. End-of-year
5. Discretionary
6. Profit-sharing
7. ARE/NCIDQ
8. LEED
9. Signing bonus
10. Referral
11. Project
12. Relocation
13. Five-year anniversary
14. Marketing
15. Quarterly
16. Other

It seems heartening that 59 percent of respondents got a bonus last year. But Baker has a sobering theory about that: Firms might have cut base salaries and relied more on bonuses. "'If we don't deliver this year, we can't be on the hook for your full salary,'" the thinking may have gone.

"WE STILL PAY 100 PERCENT PREMIUMS. IT'S THAT IMP

WHAT BENEFITS DO YOU GET?

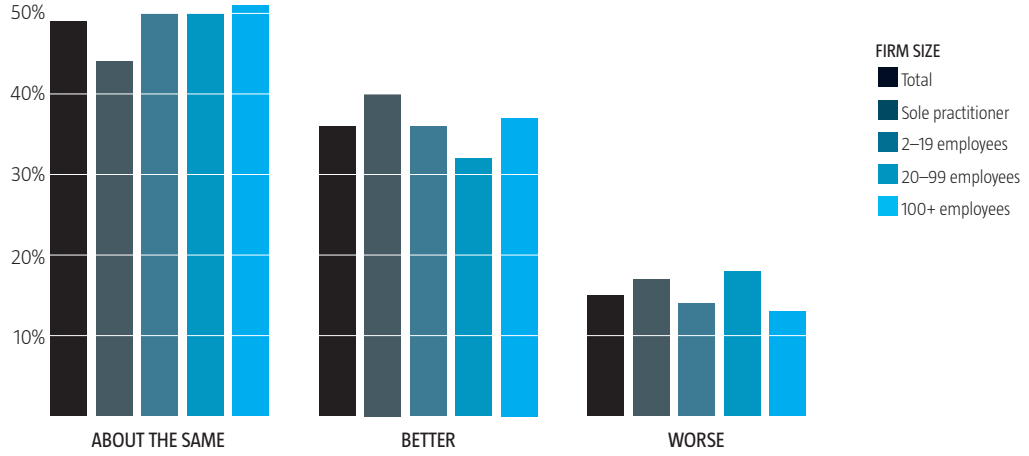


Benefits were down slightly across the board. Eighty percent of respondents reported having medical insurance, versus 88 percent a year ago.

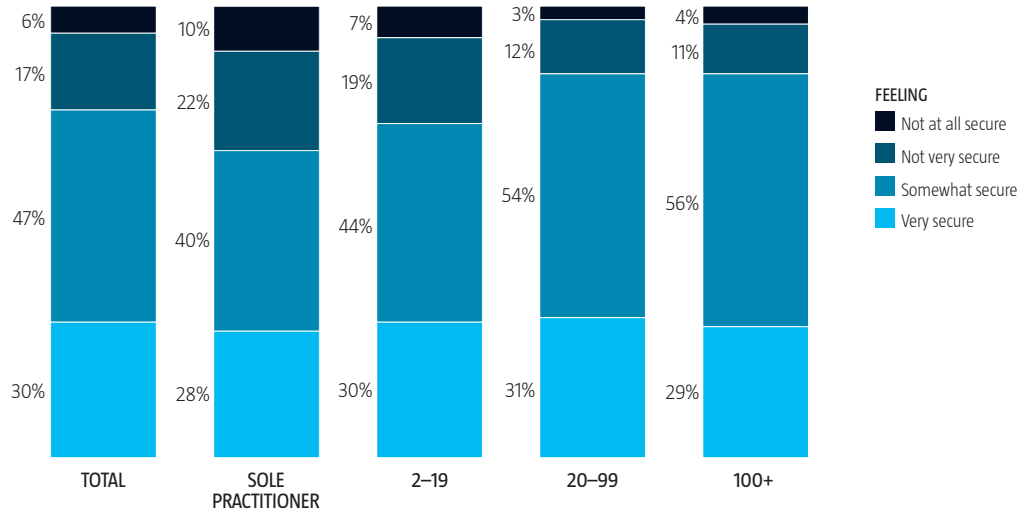
OF HEALTH INSURANCE ORTANT."

—RESPONDENT #300

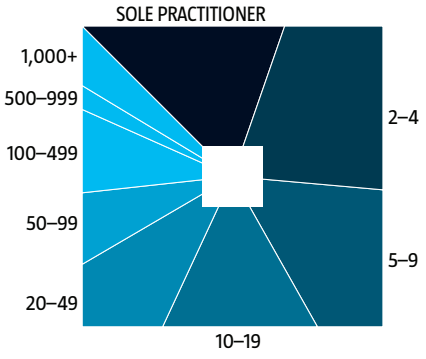
WHAT KIND OF YEAR WILL 2010 BE FOR YOUR FIRM?



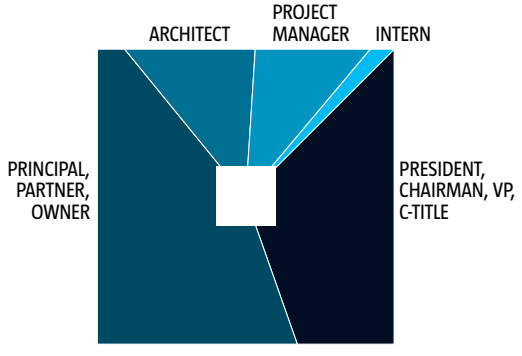
HOW SECURE DO YOU FEEL ABOUT YOUR JOB IN 2010?



WHAT SIZE IS YOUR FIRM?



WHAT'S YOUR JOB TITLE?



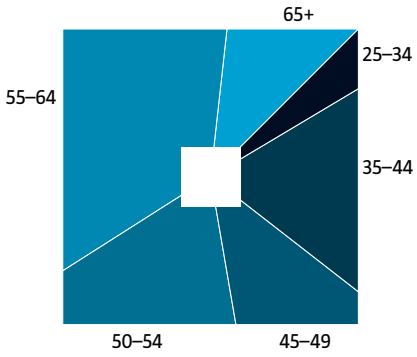
DEMOGRAPHICS

As in our 2009 survey, respondents tended to be principals/managers and had a fairly high median age (51.8). More reported working in small firms this year, a likely result of downsizing.

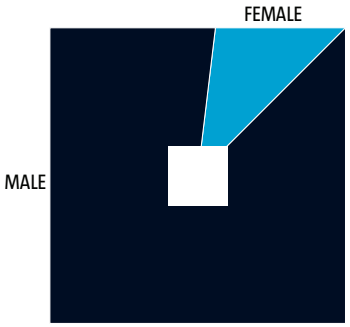
"THESE DAYS I AM JUST GLAD TO HAVE A STEADY PAYCHECK FROM A JOB I REALLY LIKE. IF I HAVE TO GO WITHOUT A BONUS OR A RAISE, I CAN LIVE WITH THAT."

—RESPONDENT #411

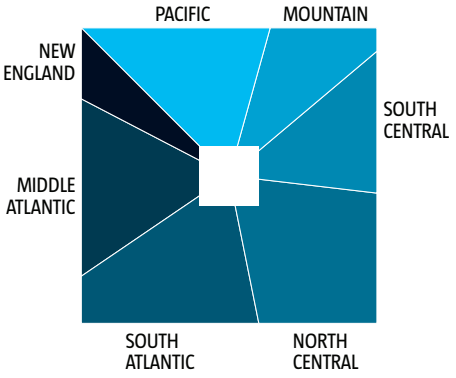
WHAT'S YOUR AGE?



WHAT'S YOUR GENDER?



WHERE ARE YOU FROM?



Take your projects to new levels.

Specify an MIA accredited commercial contractor.

Lobby of Dewey Ballentine
Washington, DC

Stone Contractor:
Rugo Stone, LLC, Lorton, VA

MIA Accredited Commercial A Contractor
MIA Accredited Commercial B Contractor
MIA Accredited Natural Stone Fabricator

Architect:
Studio Architects

General Contractor:
James G. Davis Construction

Stone Supplier:
Prostone SRL

MARBLE INSTITUTE of America

COMPETENT | SAFE | COMMITTED | QUALIFIED | REPUTABLE | SKILLED | ETHICAL | STABLE | TRUSTED

Marble Institute of America Accredited Commercial Contractors and Natural Stone Fabricators are those high performing companies that meet the industry's highest standards for technical expertise, business activities and ethics, product knowledge, safety, finance, fabrication and installation. Companies that have earned the right to display the accreditation seal have completed an intensive, rigorous process that includes documentation of its business and employment practices, letters of recommendation, a challenging examination and site inspections to the company's facility and project locations. The MIA only accredits the best that the stone industry has to offer.

www.marble-institute.com

Circle no. 44 or http://architect.hotims.com

Platinum Sponsors: Kitchen & Bath design news · ARCHITECT · Stone World · THE BOLD LOOK OF KOHLER
Gold Sponsor: Schechner Lifson Corporation
Silver Sponsor: TERRAZZO & MARBLE SUPPLY COMPANIES

TEXT BY KATIE GERFEN
PHOTOS BY ROBERT POLIDORI

MARRIOTT HALL, ST. ALBANS SCHOOL

WASHINGTON, D.C.
SKIDMORE, OWINGS & MERRILL

WHEN SKIDMORE, OWINGS & MERRILL (SOM) principal Roger Duffy first arrived on Washington, D.C.'s St. Albans School campus in 2003, he saw a lone man in a cardigan sipping a coffee in the early morning light. Hoping to get a leg up for his interview, Duffy asked the man for a tour. It wasn't until later that Duffy realized his tour guide was, in fact, headmaster Vance Wilson, the man who would become his client for the next six years.

Nestled on the grounds of the Washington National Cathedral, in a landscaped close designed by Frederick Law Olmsted, the St. Albans campus comprises several architecturally disparate hillside buildings. SOM's 70,000-square-foot Marriott Hall—half a renovation of a 1970s building (stripped down to the concrete frame) and half new construction—connects the existing facilities and adds classroom and social spaces.

Despite being unabashedly modern, Marriott Hall fits so well within its historic context, it's hard to see that it wasn't always a part of it. The entrance to the new building is deliberately quiet and unassuming: a single-story volume in glass and stone. Duffy specified masonry to match the color and mortar style of the original 1909 school building that sits adjacent. The real drama of Marriott Hall begins as the ground plane falls away to reveal three floors below the entrance level, and projecting volumes, intersecting terraces, and shifts in material disrupt the building's long, rectangular mass.

Duffy asserted that what the school needed was a landscape solution, not a building solution, which resonated with the selection committee. His team visited the Olmsted archives in Brookline, Mass., where they found the original drawings for the cathedral close—and realized that there was once a direct line of sight from the campus' main archway to the Capitol dome. Reinstating that exact view was not possible, since the 1970s building was erected in the way and because of other construction along that visual axis in the intervening century, but Duffy's team nonetheless developed their interior strategy around it. The circulation spine of the new building follows the Olmsted axis, ending in a window that frames the modern vista.

Nine massive planters, each with 3 or more feet of soil, are populated with species of trees and shrubbery found elsewhere in Olmsted's landscape. Balconies provide break-out space for students, as do green roofs planted with grass, trees, field turf, and sedum. The goal is that in five years, when the plantings are mature, the building will resemble a tree house. "There's a symbiosis with nature," says Duffy, "but there will be a balance. Right now the architecture is in the fore, but it will be softened by nature over time."

The architecture encourages students, teachers, and visitors to traverse the elevator-accessible campus via a series of exterior staircases. Bordered by masonry walls, the meandering stairs lead up and over the structures on site—an effect that Duffy likens to an Italian hill town. But in the shadow of the cathedral, the staircases also evoke a pilgrim's path. Starting at the base of the site, one can walk up and over the new building—without ever going inside it—to reach the cathedral.

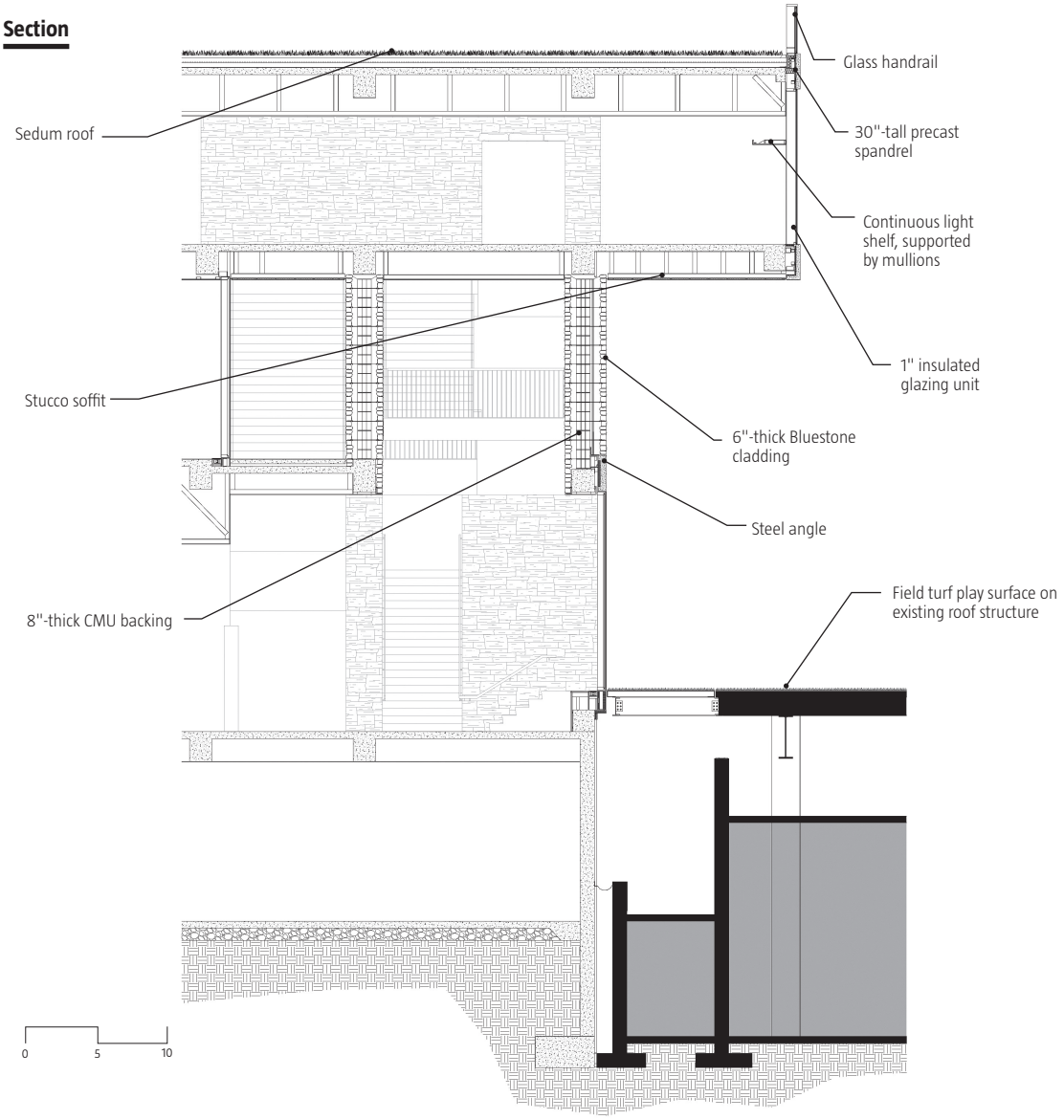
Presented with more than one path, people sometimes go astray. But without the journey, the pilgrim's progress would not be nearly so sweet.

1

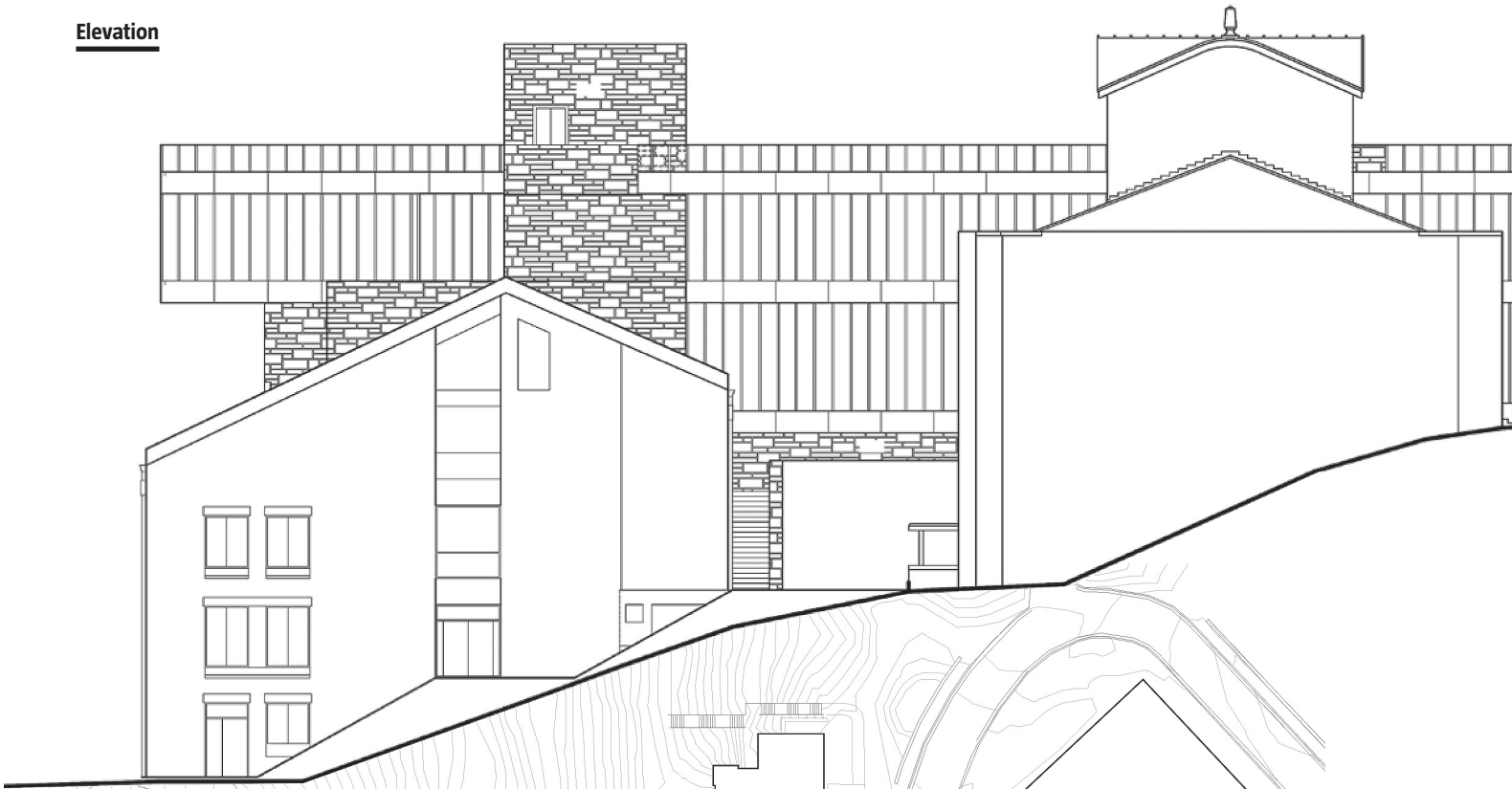
1. The masonry walls of the new Marriott Hall were designed to match those of the original 1909 school building (shown on opening page) as much as possible. Since the original quarry was long-closed, the team selected stone—based on a color match—from White Hall, N.Y., in the Adirondack Mountains, and they executed several mock-ups to ensure that the mortar work had the same hand-tooled raking as the original. The design team selected darker stone to act as a sort of wainscoting where the building meets the ground plane, another homage to the original building.

2. The project includes several green roof strategies. By applying field turf to the roof of an existing pool building (foreground), the architects created an outdoor recreation area directly off the student center. The glass guard rail on top of the cantilevered top story protects another planted green roof, this one with sedum and pavers. The next phase of the project will add a pavilion-like, glass-enclosed conference room to that top-most green roof, for use by faculty or for special events.

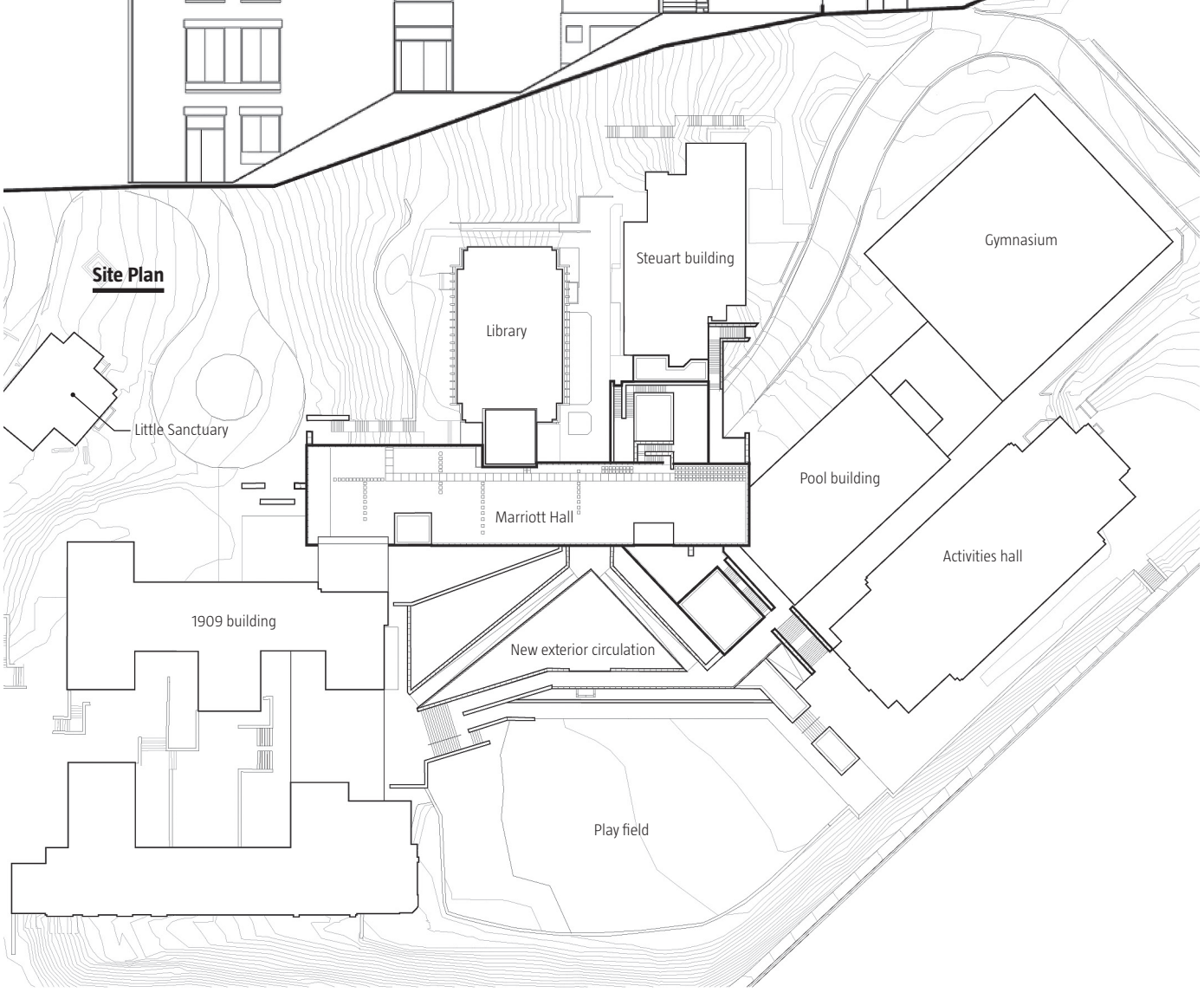
Section



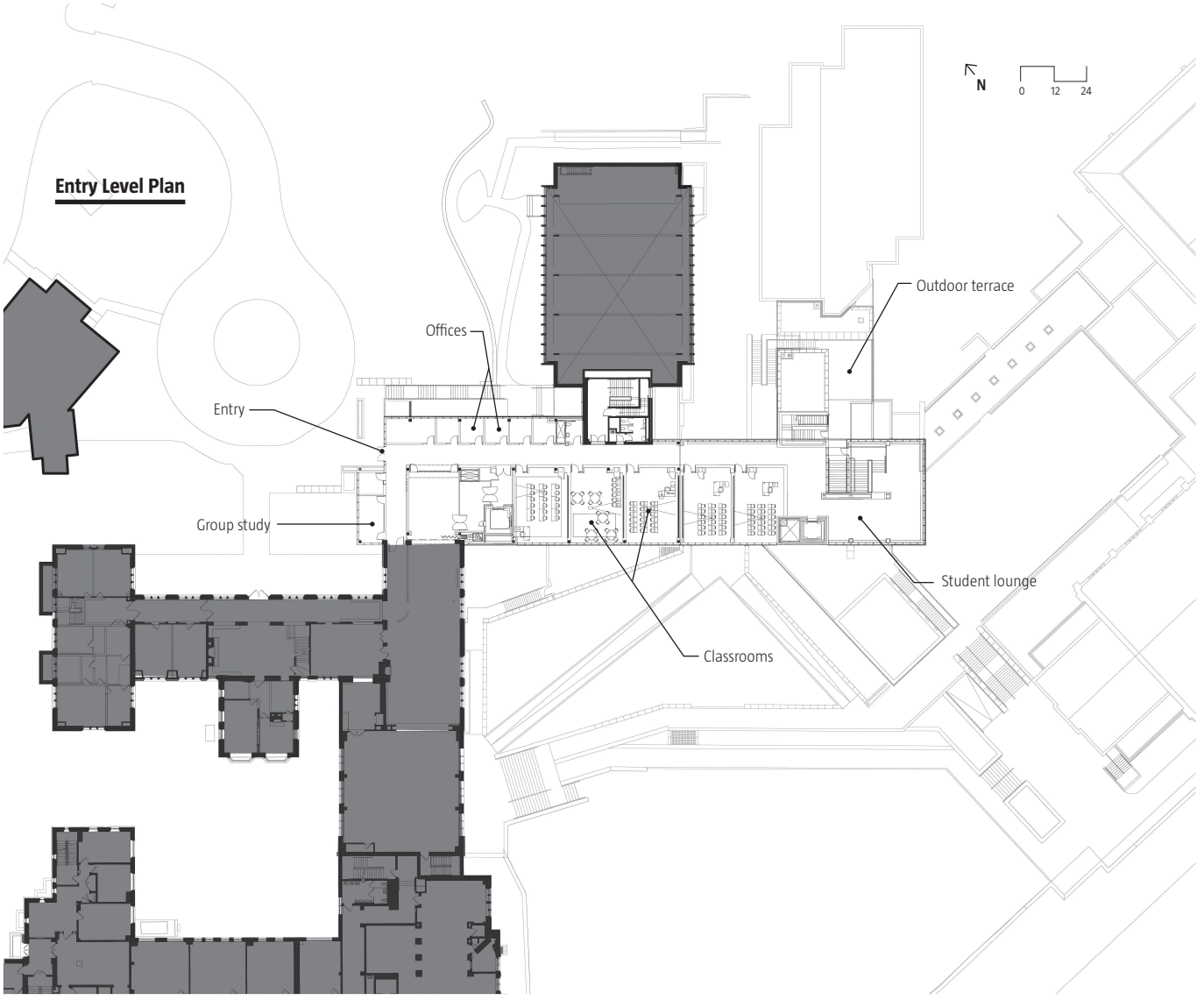
Elevation



Site Plan



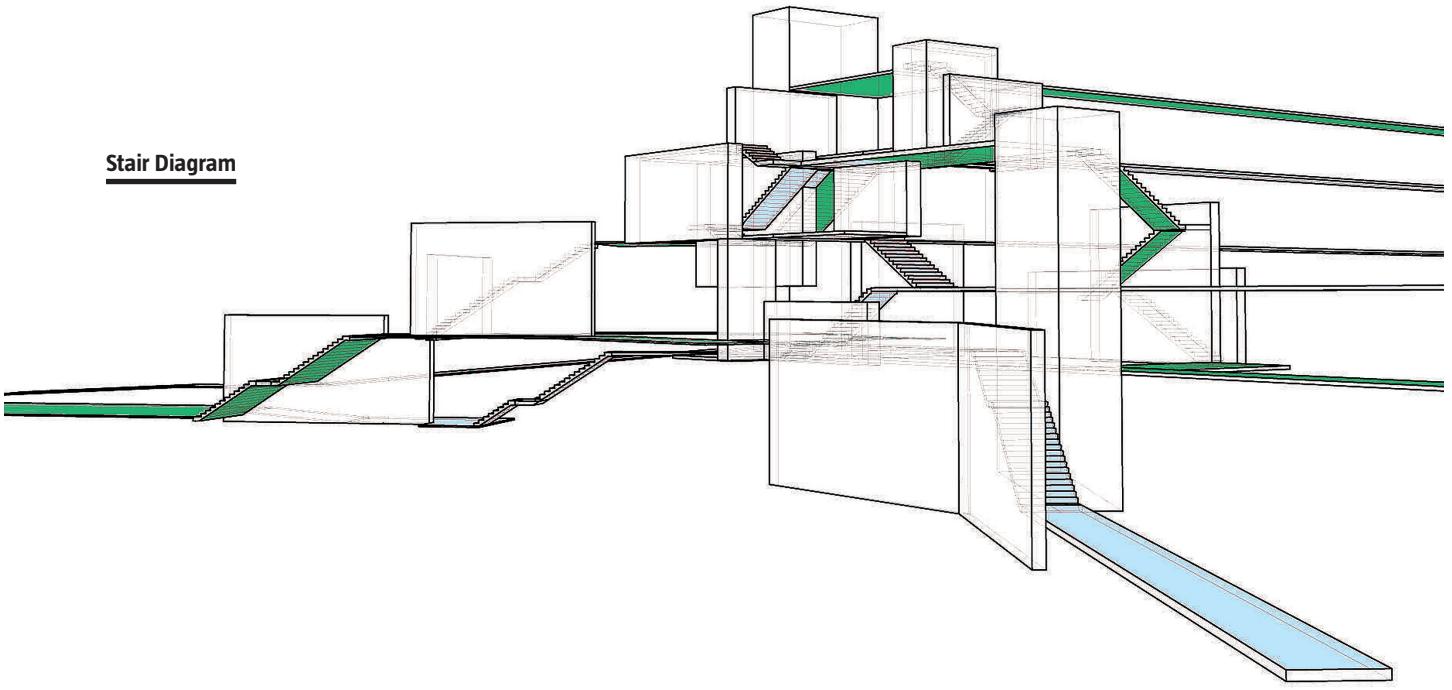
The hillside site resulted in a four-floor building that is hidden from view at the main entrance, a single-story volume on the northwest end. The two uppermost floors contain classrooms and offices, and they bridge a pathway before joining the two lower levels at the base of the hill.



1. Group study spaces, like this one adjacent to the building entrance, are located throughout Marriott Hall. Floor-to-ceiling windows allow students to view the original 1909 school building. Cues such as the terrazzo floor that matches the hallway (unlike the carpeted classrooms) mark the space as a public area.

2. Fire egress is accommodated by glass-enclosed indoor stairs that run directly alongside an exterior stair, with doors on each landing that allow students free run of the outdoors. "This is not a culture where we want to limit freedom," says Michael Carline, director of capital projects for St. Albans.

1



Stair Diagram

2

Project Credits

Project St. Albans School, Marriott Hall, Washington, D.C.
Client St. Albans School
Architect Skidmore, Owings & Merrill, New York—Roger Duffy (design partner); Anthony Vacchione (managing partner); Colin Koop (senior designer); Christopher McCready (project manager); Doug Alligood, Brad Cary (senior technical coordinators); Peter Cho (technical coordinator); Will Hulver (site representative)
Owners' Representative Tishman Construction Corp.
Landscape Richard Burke Associates
Civil Engineers Jacobs Engineering Group
Structural, M/E/P, and FP Engineers, Telecom, A/V, Acoustics, Lighting Arup Consulting Engineers
General Contractor Coakley Williams Construction
Security Access International
Vertical Transportation Lerch Bates & Associates
Food Service Hopkins Food Service Specialists
Code Code Consultants Professional Engineers
Size 70,000 square feet

Material & Sources

Adhesives, Coatings, and Sealants **Dow Corning** dowcorning.com; **Pecora Corp.** pecora.com
Carpet **Milliken & Co.** milliken.com
Ceilings **BPB America** bpb-na.com; **USG** usg.com
Concrete **Arban Precast Stone** arbanprecaststone.com
Flooring **Roman Mosaic and Tile Company (Terrazzo)** romanmosaic.com
Furniture **Irwin Seating Co. (Auditorium seating)** irwinseating.com
Lighting **Lightolier** lightolier.com; **Bega** bega-us.com; **Focal Point** focalpointlights.com; **Winona Lighting** winonalighting.com; **Electrix Illumination** electrix.com
Masonry and Stone **Adirondack Natural Stone** adirondacknaturalstone.com; **Redland Brick (Cushwa)** redlandbrick.com
Millwork **FSB** fsbna.com; **Blumcraft of Pittsburgh** blumcraft.com; **Dorma** dorma-usa.com; **Schlage** schlage.com; **Grass** grassusa.com; **Accuride** accuride.com; **Knape and Vogt** knapeandvogt.com; **Häfele** hafele.com
Paints and Finishes **Sherwin-Williams** sherwin-williams.com
Roofing **American Hydrotech** hydrotechusa.com; **Hanover Architectural Products (Pavers)** hanoverpavers.com
Windows, Curtain wall, Doors **Kawneer** kawneer.com; **Viracon** viracon.com; **Guardian** guardian.com

→ Full materials & sources at *architectmagazine.com*

LIQUID OR POWDER, IT ALWAYS MAKES A LASTING IMPRESSION.

ANACOLOR ARCHITECTURAL FINISHING
Architectural Window Manufacturing Corporation
Keymark CORPORATION
LINETEC
SAF
sapa:
SPECTRUM METAL FINISHING, INC.
TECNOGLASS
TRACO The Windows And Doors That Greet The World
WMF

SPECIFY AND TRUST PPG CERTIFIED APPLICATORS

duranar Fluoropolymer Coatings by PPG

When you want a project to make a statement or simply stand the test of time, turn to the unequaled performance of Duranar® Coatings. And you can rely on the members of the Certified Applicator Program to gain access to the best people, practices and products – including exclusive access to environmentally-friendly Duranar Powder Coatings. To learn more, call 1-888-PPG-IDEA. Or visit **www.ppgduranar.com**.

PPG IdeaScapes™
Glass • Coatings • Paint

Circle no. 431 or http://architect.hotims.com

Duranar and PPG are registered trademarks and IdeaScapes is a trademark owned by PPG Industries, Inc.

PPG Industries, Inc., 151 Colfax Street, Springdale, PA 15144 1-888-PPG-IDEA www.ppgideascapes.com

TEXT BY EDWARD KEEGAN

ILLINOIS HOLOCAUST MUSEUM

SKOKIE, ILL.
TIGERMAN MCCURRY ARCHITECTS

SITTING IN THE reading room of the Illinois Holocaust Museum & Education Center, Chicago architect Stanley Tigerman recalls applying to architecture school in 1958. One of the questions asked by Columbia (which the eventual Yalie did not attend) was, "Would you design a concentration camp?" He tells the story while leafing through a rare book from the museum's collection, which documents the correspondence and working drawings that produced the gas chambers of Auschwitz. "Somebody had to design the things," says Tigerman, before emphatically adding—"the motherf***ers!"

Tigerman has long been known for his use of specifically (and sometimes whimsical) Judaic ideas in his work. He dubbed a 1977 addition to a North Shore house a "Kosher Kitchen for a Jewish American Princess." But the Illinois Holocaust Museum in Skokie, Ill.—a Chicago suburb that is home to a large number of survivors—is the closest Tigerman has come to building an overtly religious structure based on his interpretation of his Jewish upbringing. He won the commission for the project after his partner (and wife) Margaret McCurry fetched the invitation for the interview from the trash where he had pitched it. "You have to interview for this," she told him.

Tigerman's competitors came to the interview with teams of consultants and PowerPoint presentations. He

→

→

came alone, and with a single napkin sketch that depicted two rectangular structures rotated 5.7 degrees apart. The linear journey through the building—"there's no going back," Tigerman says of the path, which leads through exhibits that tell the story of the Holocaust beginning with the oppression of the Jews in Germany and ending with an exploration of post-war Jewish culture—begins with the visitor's back toward Jerusalem and ends facing due east, representing the anticipation of a messianic age.

Two sites and nine years later, the building that opened is realized almost exactly as presented in the sketch Tigerman did for the interview. Only an early 20th century German boxcar—the museum's largest artifact—was added to the program. And it fit precisely into the void he drew between the two main volumes.

Tigerman planned the building using the ancient (and biblically cited) measurement of cubits—equal to approximately 18 inches. Since many American construction standards are based on 16-inch modules, there's a discrepancy between certain elements—such as 18-inch square windows that, with some creative joint work, fit into 16-inch standard modules—due to the difference between the ideal and the practical, an intentional contrast that Tigerman likes to use.

Two ghost-like metal columns establish a symmetrical datum for the two different, but attached, volumes. Their dimensions match the description of Solomon's Temple in 1 Kings 5–9.

The two distinct volumes are visually opposed through their architectural expression. The entrance and descent into darkness occurs within a dark building with a basilica-type section that's drawn from typical death camp structures. The ascent to light occurs in a barrel-vaulted white structure that's rooted in Tigerman's understanding of the experience in the camps. "White is about hope," he says—and it started in the death camps. "They made art, they played in orchestras," Tigerman says. "If you're alive, there's always hope."

Three circular spaces cap the ascent to light. First is a theater that displays films about the continuing efforts against genocide in the period since the Holocaust. Next, the visitor climbs to the second floor and the brightly lit Hall of Reflection—where one can sit on one of 12 cubes, measuring a cubit on each side, that represent the 12 tribes of Israel. Finally, the smaller Room of Remembrance is accessed via a walkway that overlooks the exhibits; it's located at the hinge between the two buildings.

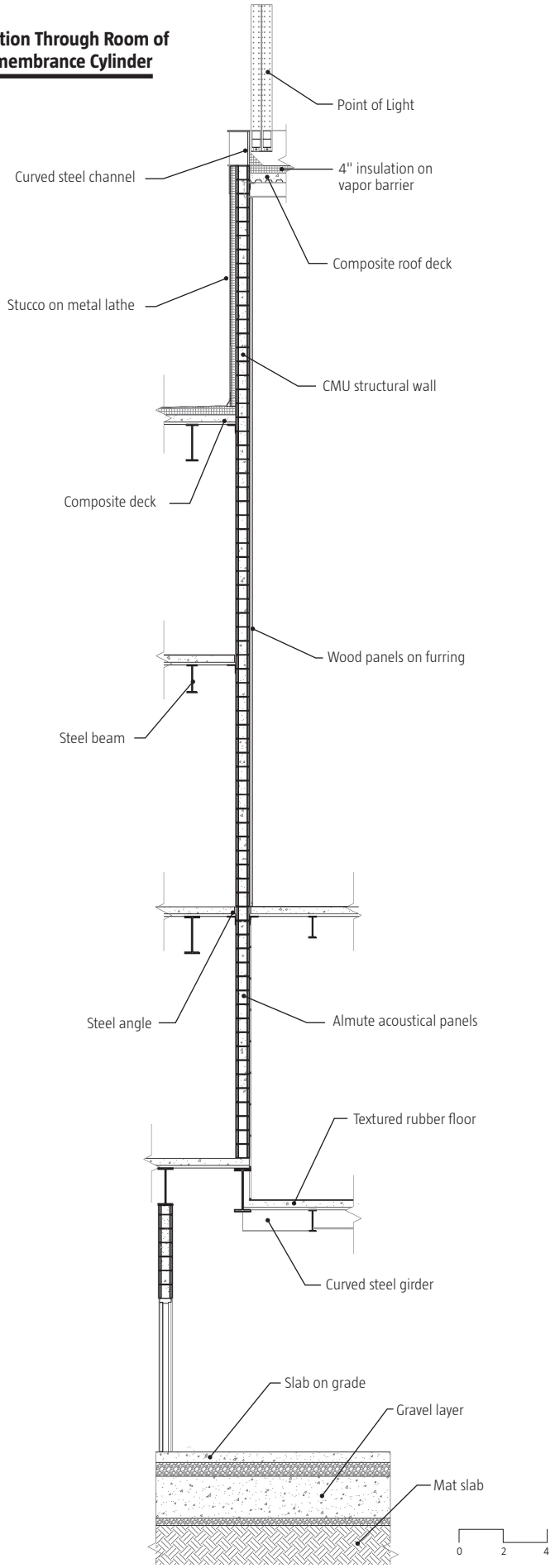
Tigerman worked on the project for almost a decade, amassing numerous friends within the survivor community. Although these individuals may soon be gone, their bond with the sometimes serious, sometimes irreverent architect is obvious in the project's outcome. Anyone who spends time with these extraordinary people will be moved by their stories of youthful horror and the amazing lives that followed in its wake.

"It's about resilience, renewal, and spirit," says the museum's executive director, Richard Hirschhaut. The statement applies equally to the building, its patrons, and its architect.

1

2

Section Through Room of Remembrance Cylinder

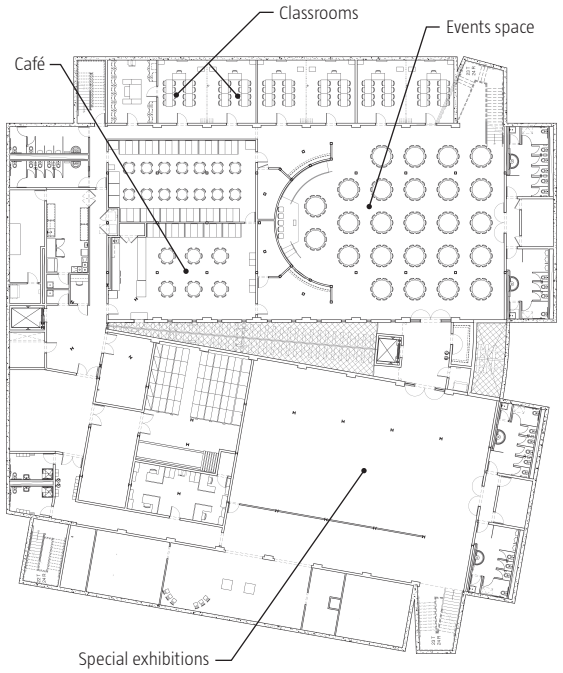


1. A cylindrical volume that houses the Book of Reflection is situated at the connecting point between the dark and light volumes of the museum. The cylinder punches through the roof plane and is topped by six riveted steel spires, called Points of Light, that represent the 6 million Jews who were killed in the Holocaust.

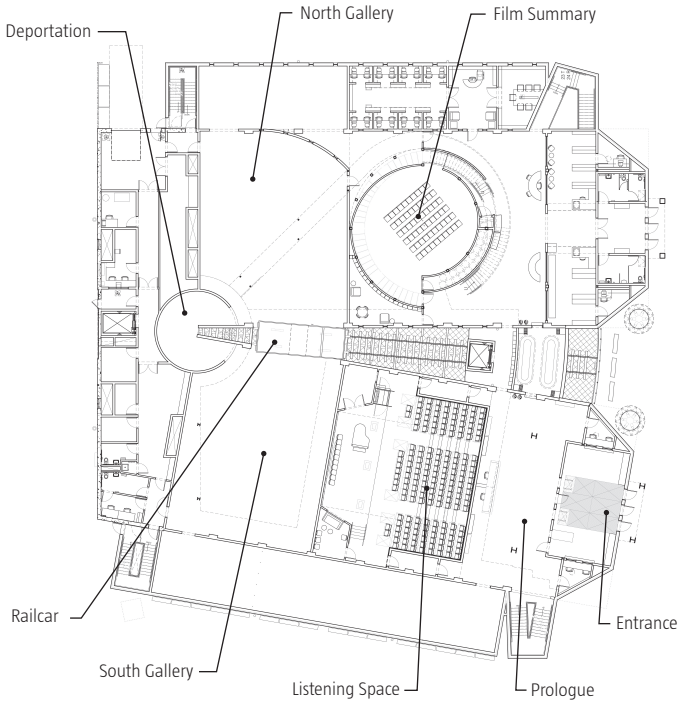
2. The Room of Remembrance is a double-height volume located on the third floor of the museum. Flanked by Jerusalem stone columns, a book containing the names of those killed during the Holocaust and memories penned by family and community members serves as the focal point of the space. Bent-wood, uplit panels were painted with names of the dead, in English, Yiddish, and Hebrew. First names were used so as to represent as many individuals as possible; the names are 2½ inches high at the base and increase in size as they move toward the ceiling. The names begin in a full, rich black at the base, which turns into a mid-tone black at the top. This was a nod to an idea by a community member to have smoke coming from behind the book of names, a proposal that was not carried out because of fire regulations.

PREVIOUS PAGE TOP AND 1: WILLIAM ZBAREN, PREVIOUS PAGE BOTTOM AND 2: ©2010 DAVID SEIDE/DEFINEDSPACE.COM

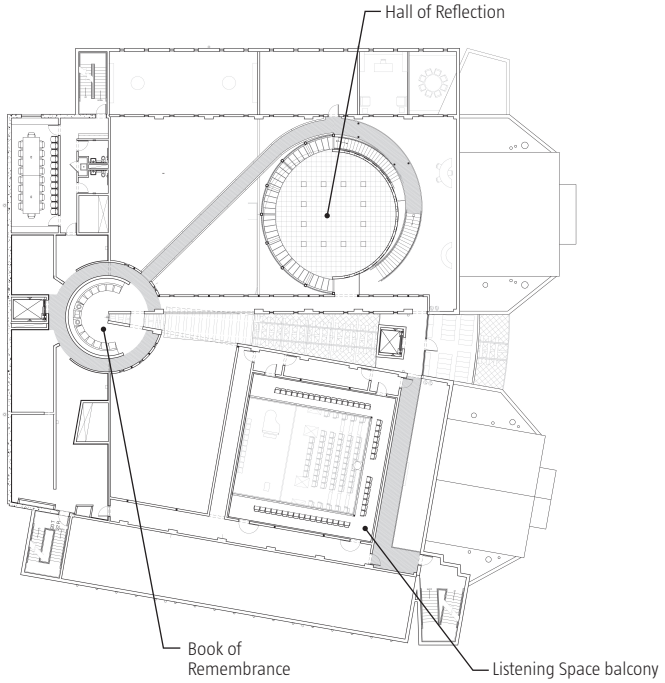
Ground Floor



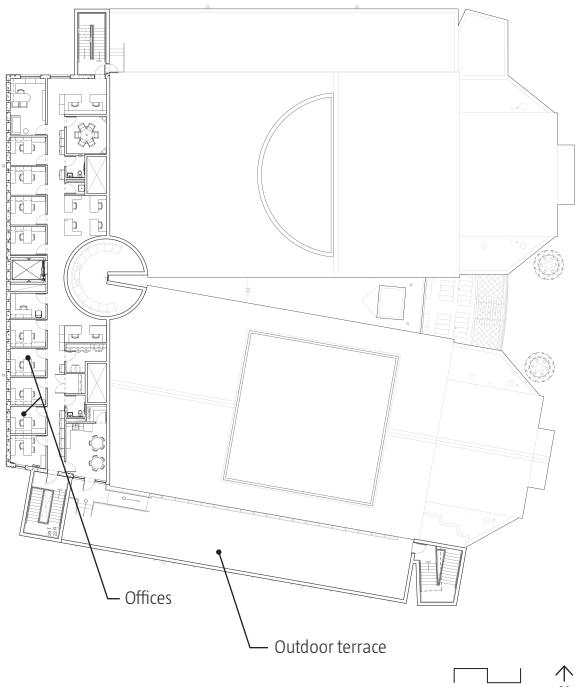
First Floor

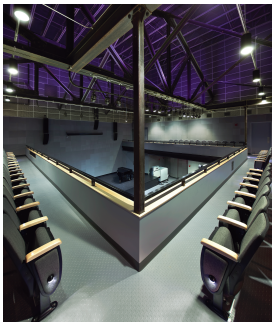


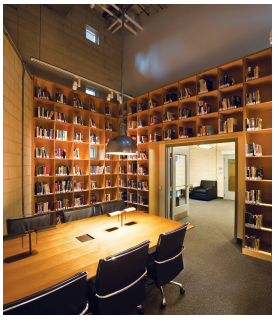
Second Floor

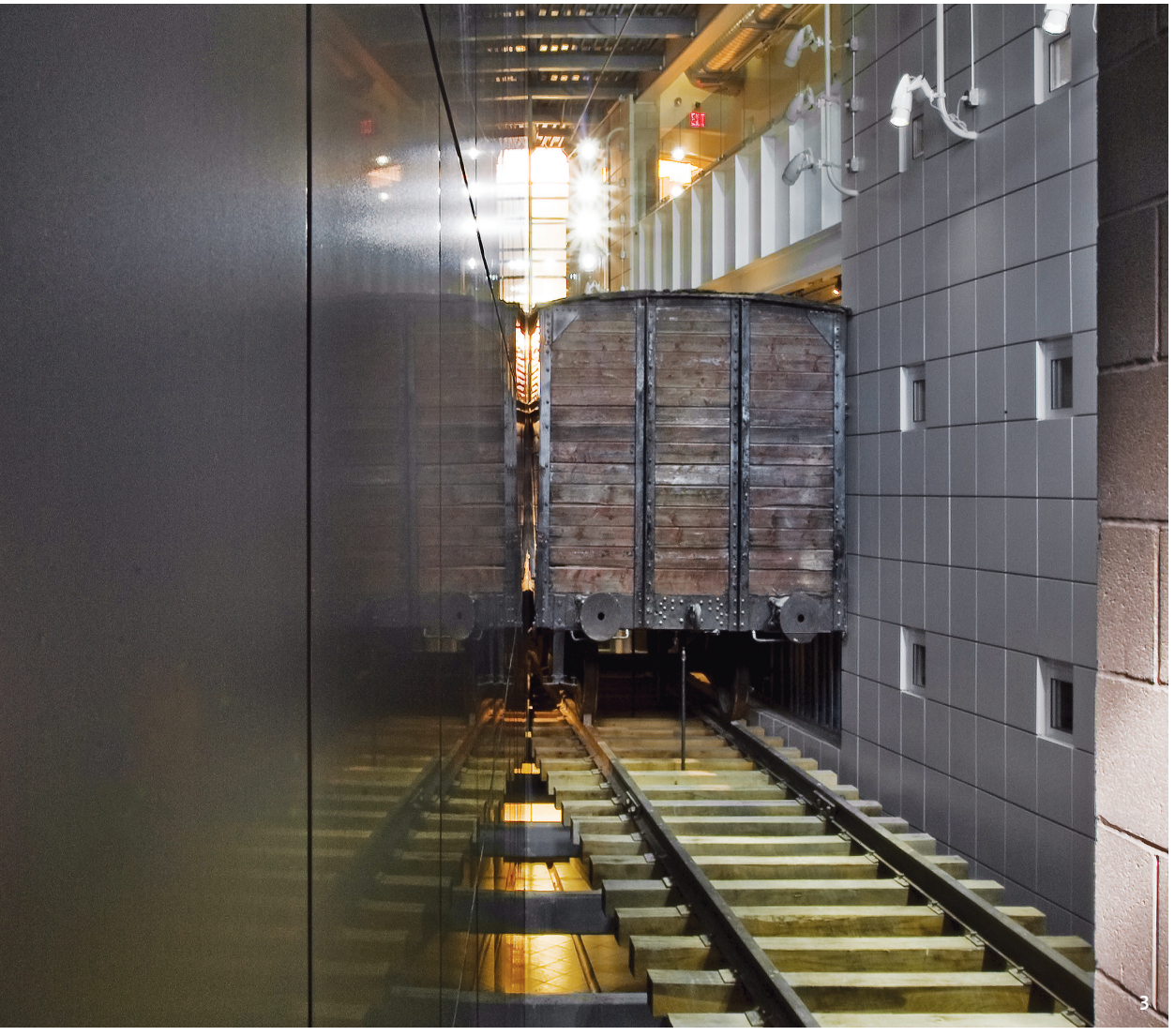


Third Floor









1. The first room visitors enter is the Prologue, a dark space with no access to natural light and with a raw materiality expressed in concrete floors, CMU walls, and a heavy steel reception desk. A catwalk above the desk leads to the Listening Space (top), a perfect cube, where visitors see presentations about the Holocaust and the exhibits they are about to enter. The museum also encourages community members to do their own research, offering resources such as a reading room (above).

2. In the white volume, glazing creates light-filled spaces that drive home the contrast between light and dark that exists throughout the space. The dark triangular trusses of the first volume give way to white arced beams, like those in this circulation space by the museum shop.

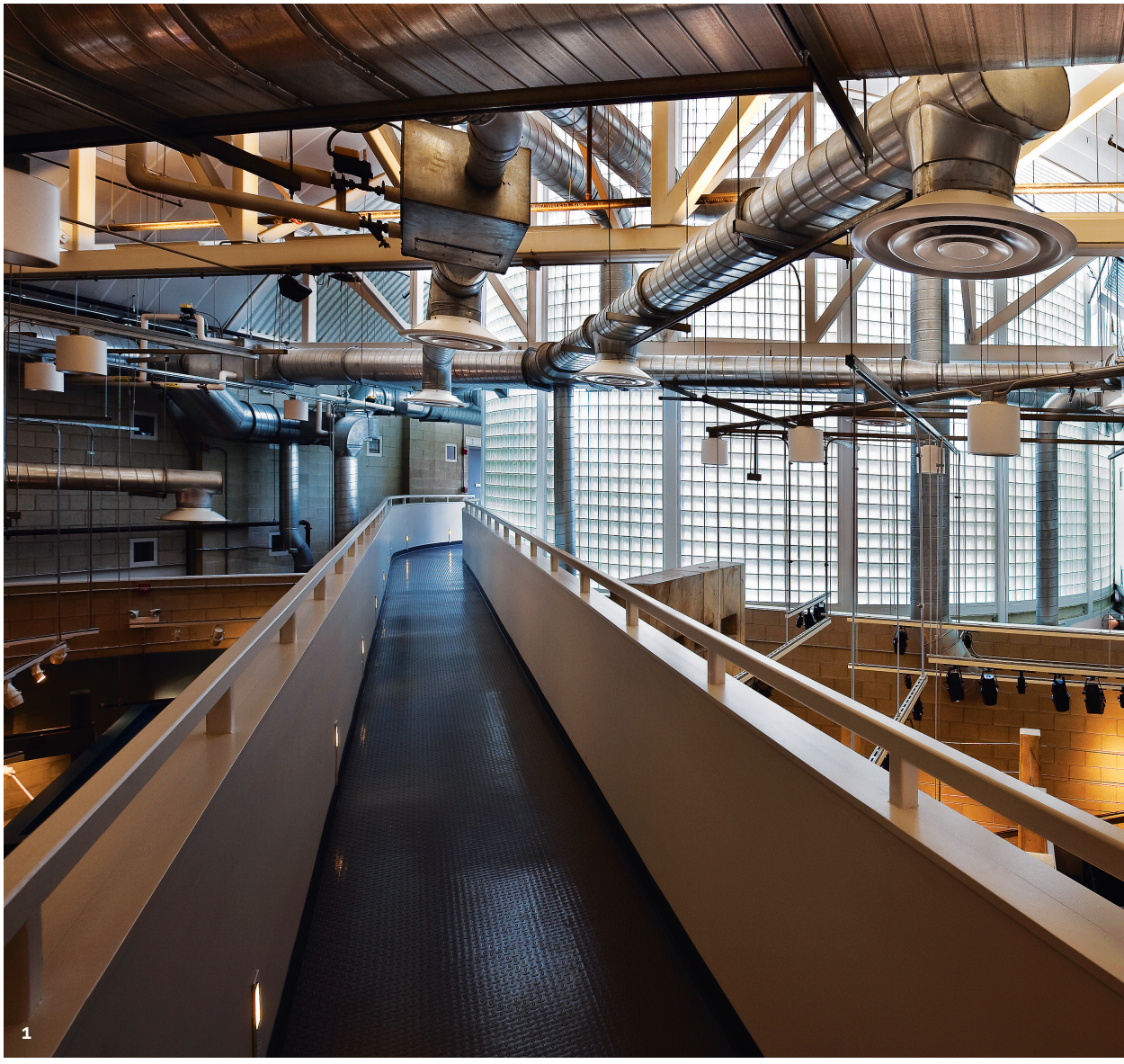
3. The bridge between the two volumes is an early 20th century German railcar, like those used to transport Jews to concentration camps during World War II. Visitors first see the car as they approach the Deportation space, a round room at the base of the Room of Remembrance cylinder, where they watch videos of the transportation process. After exiting Deportation, they can choose to enter the car before moving into the North Gallery in the lighter building volume.

1 AND 3: WILLIAM ZBAREN; 2, TOP, ABOVE: ©2010 DAVID SEIDE/DEFINEDSPACE.COM

1. A catwalk leads from the Room of Remembrance to the Hall of Reflection, another roughly cylindrical volume in the lighter wing that offers visitors a chance to reflect on all they have seen. The catwalk is suspended above the North Gallery and sits just under a maze of exposed ductwork. The design intent was to create a building that was raw and transparent in its functions.

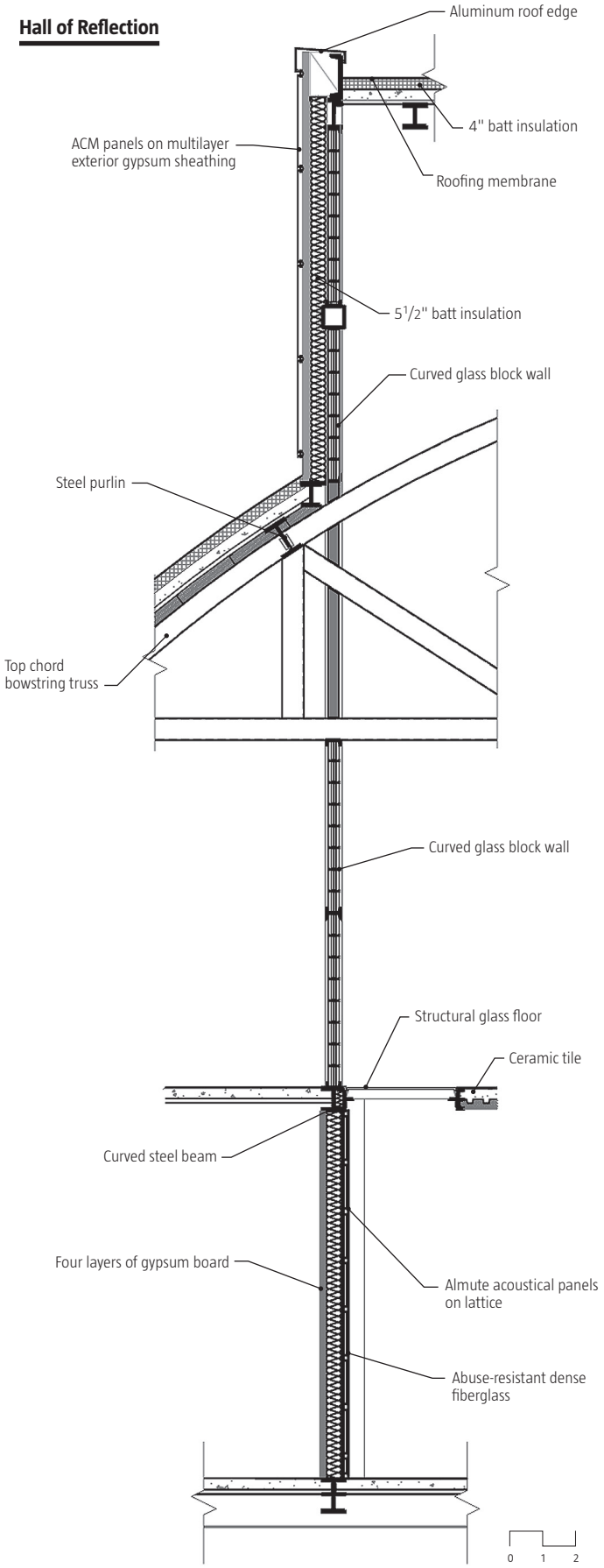
2. The Hall of Reflection is, intentionally, one of the lightest spaces in the building, representing the hope that comes out of learning from the experiences of those who suffered through the Holocaust. Skylights admit natural light into the space, and a glass block wall, square windows, and glass floor tiles ensure that every surface is in some way glazed.

3. Inside the Hall of Reflection, ceramic tile covers the floor and the 12 benches that represent the 12 tribes of Israel. Acoustic material lines the gray wall, diffusing sound in a room otherwise composed of hard and potentially reverberant surfaces.



1: ©2010 DAVID SEIDE/DEFINEDSPACE.COM;
2 AND 3: WILLIAM ZBAREN

Hall of Reflection



Project Credits

Project Illinois Holocaust Museum & Education Center, Skokie, Ill.
Client/Owner Holocaust Memorial Foundation of Illinois
Architect Tigerman McCurry Architects, Chicago—Stanley Tigerman (architect); Nancy Atsumi, Harold DiVito, Lisa Kulisek, Melany Telleen (project managers)
Interior Design Tigerman McCurry Architects (office spaces); Layman Design (exhibition spaces)
Mechanical/Electrical Engineer Lehman Design Consultants
Structural Engineer The Structural Shop
Civil Engineer Daniel Creaney Co.
Construction Manager Patrick O'Bryan
General Contractor Bulley and Andrews
Landscape Architect Hoerr Schaudt Landscape Architects
Lighting Designer Schuler Shook
LEED Consultant J.T. Katrakis & Associates
Security Secure Source
Roofing Building Technology Associates
Acoustical and A/V Kirkegaard
Technology Baker Robbins & Co.
Size 65,000 square feet
Cost $30 million

Material & Sources

Acoustical System Chicago Metallic Corp. chicagometallic.com; **Conwed Designscape** conweddesignscape.com; **Almute (Acoustical Panels)** almute.com
Carpet Mohawk Industries mohawkind.com; **Bentley Prince Street** bentleyprincestreet.com
Ceilings Tectum tectum.com; **Chicago Metallic Corp.** chicagometallic.com
Concrete Ozinga ozinga.com; **Advanced Cast Stone Co.** advancedcaststone.com
Exterior Wall Systems Northfield Block Co. (CMU) northfieldblock.com
Expansion Joint Emseal emseal.com; **Dimex** dimexcorp.com; **Foamtastic Corp.** foamfiller.com
Flooring Expanko expanko.com; **Estrie** american-biltrite.com/flooring/estrie; **Johnsonite** johnsonite.com; **Armstrong** armstrong.com
Glass Glass Solutions Inc. glasssolutionsinc.com; **Glass Block of America** glassblockusa.com
Insulation Cetco (Voltex) cetco.com; **Kedmont Waterproofing Co.; Dow Building Solutions** building.dow.com
Roofing Sarnafil (PVC membrane) sarnafil.us
Seating Mobiliario mobiliario.net
Site and Landscape Landscape Forms (Bike Racks) landscapeforms.com
Windows and Doors Glass Solutions glasssolutionsinc.com; **LinEl Signature (skylights)** linelsignature.com
Vertical Transport Schindler (elevators) schindler.com; **Thyssenkrupp (portable lift)** thyssenkrupp.com

→ **Full materials & sources at *architectmagazine.com***

The Construction Industry is Talking about CSI!

"It wasn't until I joined CSI that I really started understanding building materials, construction technology, and the process of getting something built. Every successful building is the result of a team effort. CSI is where I get to know my teammates."

—Daniel Hargreaves, CSI, CDT, RAS

"The biggest benefit that I have received from CSI is the recognition of professionalism from others in the industry. I am continually called upon by the design community for advice relating to contracting and bid procedures."

—Richard Cooper, PE, CSI, CDT, General Contractor

"As far as career enhancement, CSI has been worth its weight in gold—maybe platinum!"

—Robert H. Mallory, FCSI, CCCA, CCPR, LEED AP, Owner

"The CDT gave me an incredible jump-start to understanding the project life-cycle. More noteworthy is the broad pool of industry knowledge available to me by members at my local chapter."

—Eli Lemanski, CSI CDT, Construction Document Technologist

Enhance your career—do your job better, faster and more economically with CSI.

Visit www.csinet.org/joinCSI or call 1-800-689-2900 to connect with construction professionals through CSI.

Circle no. 31 or http://architect.hotims.com

The Construction Specifications Institute
110 S. Union Street, Ste 100
Alexandria, VA 22314
800-689-2900
www.csinet.org

TEXT BY JOSEPH GIOVANNINI
PHOTOS BY PETER VANDERWARKER
(EXCEPT WHERE NOTED)

JOUKOWSKY INSTITUTE FOR ARCHAEOLOGY & THE ANCIENT WORLD

PROVIDENCE, R.I.
ANMAHIAN WINTON ARCHITECTS

1

RHODE ISLAND HALL, an august 1840s Greek Revival structure at Brown University, is a major chess piece on the main quad, with one entrance opening onto the green and the other toward town. Prominent by location and distinguished by its stylistic purity, it is also singular for a stucco façade (which simulates limestone) on the brick campus.

Because of the building's iconic status at the university, all eyes were on Anmahian Winton Architects of Cambridge, Mass., when it was asked to reinvent the 15,000-square-foot interior of the Joukowsky Institute for Archaeology and the Ancient World. The exterior had been restored a decade before, but the interior, compromised by many jerrymandered changes over decades, demanded restructuring and a gut renovation.

Compounding the expectations was the archaeologists' request that the architects dust off the image of their field with an up-to-date interior that would attract faculty and graduate students. The design also fosters an environment that encourages spontaneous exchanges between scholars. The clients perceived architecture as an instrument for defining the institution and enhancing its competitive academic position.

The structure originally was designed as a natural history museum with specimen display cabinets in a daylit, top-floor space. Along with the restored shell and a sound roof, the architects inherited five massive skylight openings whose luminosity would be the only constant after the floors were removed and the structure taken back to the rubble walls. "Over the years, the spaces were closed in and chopped up, but the [skylights] on the top floor were intact," principal Nick Winton—who designed the project with partner Alex Anmahian—says. "The genesis of the design was how to distribute and manage that light."

It was the rare interiors commission with a strong mission, a distinguished existing building, and a mandate to build inside from the ground up. The program itself called for classrooms, a lecture hall that could double as an event space, and faculty and administrative offices. "They wanted niches for artifact display," notes Winton, "but they were clear about being perceived as an active research facility, not a museum." The architects organized the program so that the most appropriate spaces would occupy the luminous second floor. Conceptually, the vector of the design went from the high-ceilinged ground floor up through a core staircase to the light.

Winton and Anmahian, working with project manager Aaron Bruckerhoff, deployed the administrative offices, common room, and lecture hall on the ground floor, and set the new ceiling at a generous 12 feet. The architects saved the second floor for the faculty offices, library, lounge, and student research space. The library rings the perimeter of this double-height space, and the offices—in a translucent glass enclosure—form a glass-walled island centered in the large room. The cluster of offices acts as a podium for a mezzanine designed as an open graduate student research studio directly under the skylights.

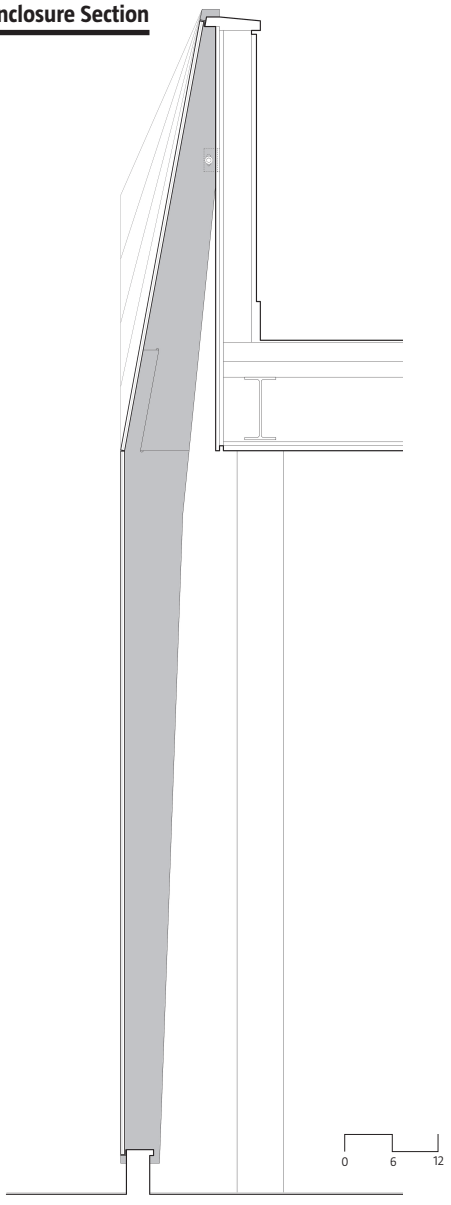
The architects orchestrated the basic rudiments of architecture—a core staircase, overlooks, pooled space, glass walls—to socialize the interior and keep it from becoming a den of isolated and isolating cubicles and offices. But there is a material corollary to their socializing strategy. Throughout both floors, the architects built screens made of slender, 1-by-6-inch, walnut-veneered fins that separate spaces without closing them. Their porosity allows spatial flow and visual access while giving the spaces definition.

The twist, however, is in their twist. At strategic moments in the plan, the screens warp, creating peeling planes that dynamize walls and spaces within the static confines of the original stone shell. Designed and fabricated with digital files, the screens are geometrically complex, but were not difficult or prohibitively expensive to craft.

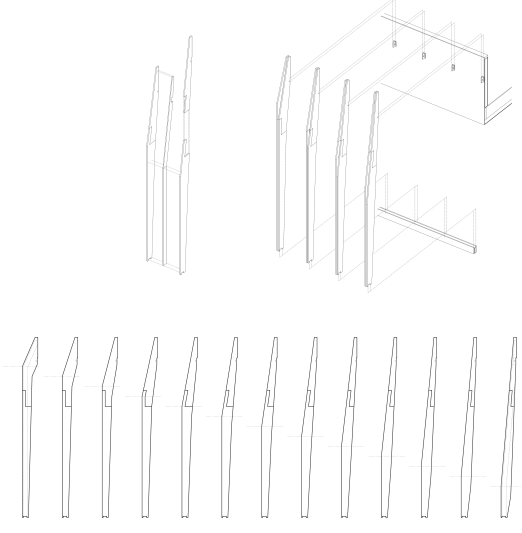
The Greek Revival shell represents the progressive thinking of its time, and the screens inflect the stately shell with the grace and intelligence of our own day. The design is progressive without being conspicuously radical. And no one can mistake this digitally driven interior for a musty museum that houses a staid academic department. The dynamic interiors imply a dynamic institution.

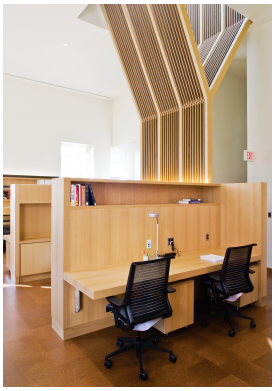
2

Office Enclosure Section



Assembly Axonometric





1. On the double-height second floor, the design team created an office enclosure out of plywood and translucent glass. This allows the surrounding library space to serve as a lively research and social area without creating distractions for those at work. The architects achieved the pleated form of the enclosure by creating a variety of cutting patterns for the wooden fins, and by allowing for coordinating seams in the glass. Two pieces of glass were used in each vertical panel to accommodate the bend.

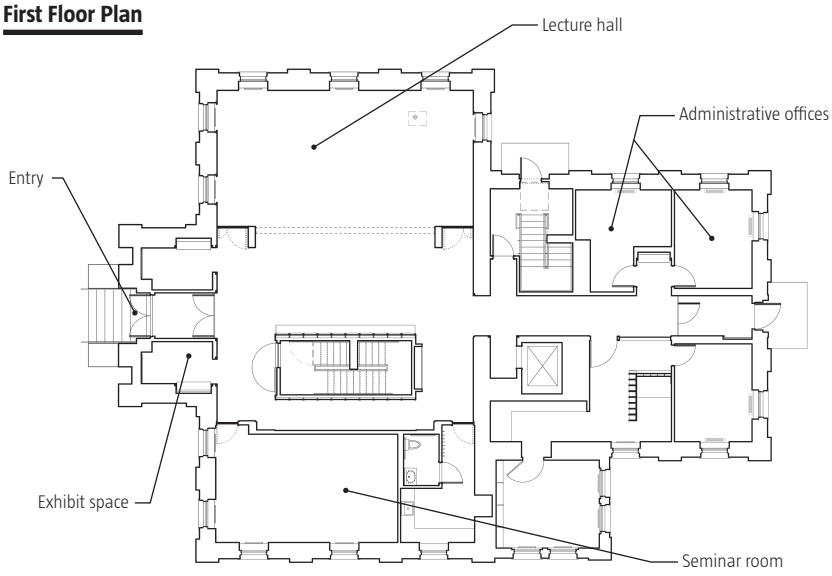
2. Also on the second floor, a screen composed of 1-by-6-inch walnut veneer planks doubles as a sunshade and a spatial divider between a reading room and the circulation pathways (above). The screen is a recurring theme throughout the interior, warping to create small rooms without cutting off visual access and serving as spot sunshading underneath the existing skylights over workstations (top).

TOP: JANE MESSINGER

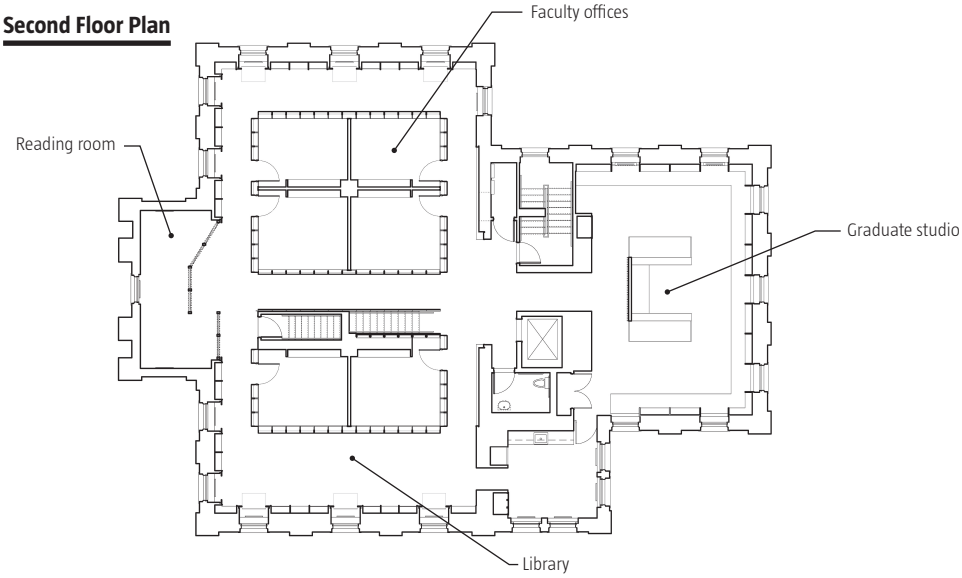
The architects left signs of the building as it existed before—framed reveals in the new walls (opposite) allow students to see through to the original stone walls of the 1840s structure. In the same vein, the architects preserved the building's legacy as a natural history museum by creating new exhibition spaces on either side of the main entry (above). These spaces pair new exhibition techniques with the highlights of the institute's collection of artifacts. The double-height second floor is the social heart of the building, where students and faculty casually meet and mix in the library, on the stairs (top) and in the research space perched atop the office enclosure (middle).

TOP AND ABOVE: JANE MESSINGER;
OPPOSITE: WARREN JAGGER

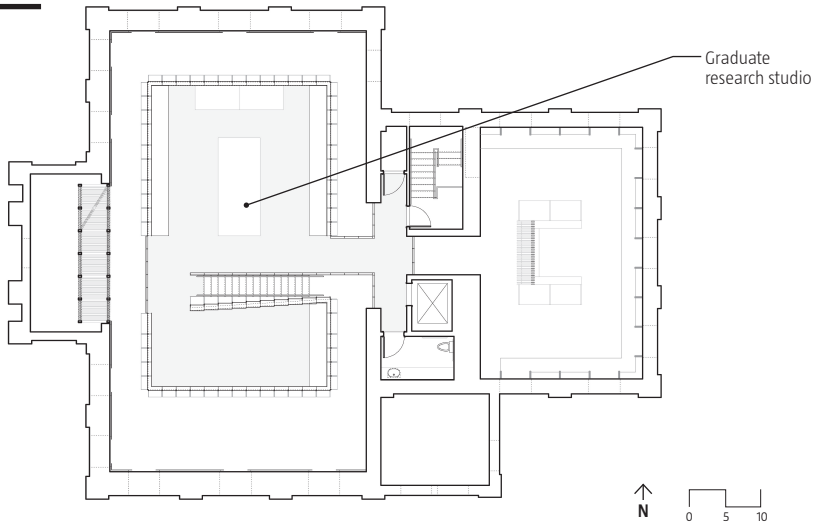
First Floor Plan



Second Floor Plan



Mezzanine Plan



Project Credits

Project Joukowsky Institute for Archaeology & the Ancient World, Providence, R.I.
Client/Owner Brown University
Architect Anmahian Winton Architects, Cambridge, Mass.—Nick Winton (principal-in-charge); Alex Anmahian (consulting principal); Aaron Bruckerhoff (project manager); Joel Lamere (project architect); Makoto Abe (project designer); Aaron Stavart, Esther Chung, Sabah Corso (project team)
Mechanical/Electrical Engineer RDK Engineers
Structural Engineer Richmond So Engineers
Geotechnical engineer GZA
Construction Manager/General Contractor Shawmut Design & Construction
Landscape Architect Hines Wasser Associates
Lighting Designer Lam Partners
Size 15,000 square feet
Cost $8 million

Material & Sources

Carpet **Lees Carpets** leescarpets.com
Ceilings **Certainteed (Ecophon)** certainteed.com; **Armstrong Ceilings** armstrong.com
Doors **Monarch Industries** monarchinc.com; **Skyfold** skyfold.com
Flooring **Natural Cork** naturalcork.com
Furniture **Steelcase** steelcase.com; **Neudorfer** neudorfer.com; **Cabot Wrenn** cabotwrenn.com
Glass **Oldcastle Glass** oldcastle.com
HVAC **York** york.com
Insulation **Demilec** demilec.com; **Certainteed** certainteed.com
Lighting Control Systems **Lutron** lutron.com
Lighting **Ledalite** ledalite.com; **Lightolier** lightolier.com; **IO LED** iolighting.com; **Prudential** prulite.com; **Bartco** bartcolighting.com; **Focal Point** focalpointlights.com; **Vode** vode.com
Metal **Capco Steel Corp.** capcosteelco.com; **Newark Wire Works** newarkwireworks.com
Millwork **Monarch Industries** monarchinc.com
Paints and finishes **Benjamin Moore** benjaminmoore.com
Site and landscape products **Yard Works** yardworksri.com
Structural system **Capco Steel Corp.** capcosteelco.com
Wayfinding **Malcolm Grear Designers** mgrear.com; **Sunshine Sign Co.** sunshinesign.com

STAY CONNECTED. ONLY AT LIGHTFAIR® INTERNATIONAL

THE WORLD'S LARGEST ANNUAL ARCHITECTURAL & COMMERCIAL TRADE SHOW AND CONFERENCE

LIGHTFAIR is your opportunity to connect with an anticipated 19,000 professionals and more than 475 of the most recognized manufacturers of lighting technologies, innovative designs, controls and energy-efficient products. Plus, explore the **Daylighting, Global Light + Design, Building Integration** and **Design Pavilions** and attend the world's largest lighting–related educational program.

LIGHTFAIR Daylighting Institute®
LIGHTFAIR Institute®
Monday, May 10 –
Tuesday, May 11, 2010

Trade Show & Conference
Wednesday, May 12 –
Friday, May 14, 2010

Las Vegas Convention Center
Las Vegas, NV
www.lightfair.com

Circle no. 412 or http://architect.hotims.com

PHOTO CREDITS: DESIGNERS: Mark Major, IALD, James Newton, Clementine Rodgers
COMPANY: Speirs & Major Associates PHOTOGRAPHY: James Newton

2010

LIGHTFAIR® INTERNATIONAL

The future. Illuminated.

IALD
In collaboration with The International Association of Lighting Designers

In collaboration with The Illuminating Engineering Society

AMC
Produced & Managed by AMC, Inc.

Resource/Classifieds

Fire-Rated Aluminum Doors & Windows

www.aluflam-usa.com

Imagine being able to specify a fire-rated system that looks so good you wouldn't know it's fire-rated. Imagine the clean, rich lines of true extruded aluminum frames and large panels of clear glass. With ALUFLAM™ storefront and curtainwall systems and Glass from VETROTECH SAINT-GOBAIN, this is reality.

Contact us for further information—
714-899-3990
Email info@aluflam-usa.com

Circle no. 300

Small But Powerful

FAAC is the world's largest specialized manufacturer of operators for swing, slide and barrier gate systems. The Model 400 heavy-duty, hydraulic swing gate operator is designed for heavy traffic applications, such as subdivisions and apartments. Its power and reliability also make it ideal for large, ornate gates.

Learn more at: ***www.faacusa.com.***

FAAC International, Inc.

FAAC USA
An ISO 9001 Certified Company

Circle no. 301

GageCast
Gage Corporation, Int.®

Gagecast® is a cast metal wall surfacing material suitable for a variety of interior architectural applications where patterns that feature high luster, relief, durability, and cost effective installation are a requirement. Twenty designs are standard; however, custom collaboration is encouraged. Gagecast® is one component of Gage Vertical Surfacing. Contact the factory for product literature and sample requests.

800-786-4243 • gage@centurytel.net
www.gagecorp.net

Circle no. 302

search.
source.
learn.
connect.
ebuild.

ebuild is the destination for construction pros searching for information about building products. **ebuild** is a source of new product coverage, trends and news. Pros visit **ebuild** to learn how to do their jobs faster, safer and easier. **ebuild** connects pros to product manufacturers, experts and peers.

hanley▲wood
ebuild
a 360 degree view of product information
ebuild.com

Magnet for Talent

JR Walters Resources, premier A/E/C recruiting firm, can help you grow your company and your career. Review current opportunities at

www.jrwalters.com
or call 269 925 3940

Circle no. 303

SCIP
Specifications Consultants in Independent Practice

Need a specification consultant for your next project?

www.scip.com

celebrating 42 years

Circle no. 304

Life's all about change.

Walker Display helps you design an efficient system for exhibiting artwork anywhere. The functional no-nails design works on all wall surfaces, allowing creativity and easy rearrangement of artwork.

WalkerDisplay
INCORPORATED

COMPLETE ONLINE CATALOG
800-234-7614 • www.walkerdisplay.com

Circle no. 305

Resource

Innovation, versatility, durability.

Products from Tile of Spain branded manufacturers are at the forefront of high-performance design and low lifecycle cost. A superior material for interiors and exteriors, ceramic tile is one of the most high performance materials in the construction industry today.

Contact Tile of Spain at 305-446-4387 or www.spaintiles.info

Circle no. 306

PPG Introduces New Neutral-Reflective Solarban R100 Glass

The introduction of Solarban R100 to PPG's ever-expanding Solarban family of solar control, low-e glass offers architects a better-performing transparent-reflective glass option. Because it is based on the same coating technology as Solarban 70XL glass, Solarban R100 glass delivers comparable solar performance with color-neutral, low exterior reflectance of 32 percent. Compared to similar products, Solarban R100 helps building owners lower the amount of energy required for heating, cooling and artificial lighting.

Circle no. 307

Classroom Lighting and Control Solutions

A+CLASS is a classroom energy management system consisting of high performance lighting and controls from a single source. Each classroom receives lighting for both general and audio visual teaching plus simple, intuitive controls for energy reduction. A+CLASS features both portable commissioning templates and e-commissioning to A+CLASS SD card for system upload. Packages available for LEED and CHPS points. Patent Pending.

For more information about Alera Lighting, visit www.aleralighting.com

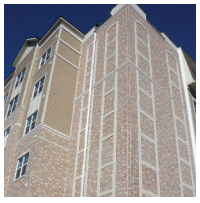
Circle no. 308

Tile of Spain

Unrivaled versatility, superior hygienic properties. Ceramic tile offers freedom to create environments that are as healthy as they are stunning. Learn more about products from Tile of Spain branded manufacturers and how they are advancing aesthetic and hygienic appeal in healthy hospitality.

Contact Tile of Spain at 305-446-4387 or www.spaintiles.info

Circle no. 309



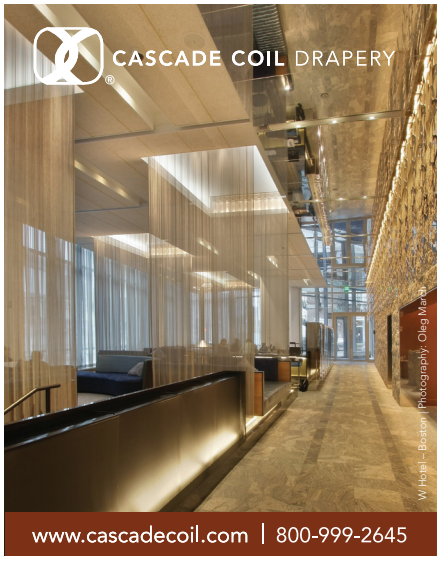
Higher Standards for Fiber Cement

Nichiha is setting a new standard of quality and texture with our fiber cement panels. Our manufacturing process is unique in that the texture is pressed and not rolled on to create a deeper, more authentic look.

Fiber Cement At Its Best™

NICHIHA

Circle no. 310



Circle no. 311

Circle no. 312

LEED® Contribution

Gathering LEED points through daylighting can greatly impact any project. Kalwall's highly insulating, diffuse-light transmitting, translucent wall systems, skylights and replacement windows are uniquely suited to achieve the desired results. The use of Kalwall can contribute up to 42 points under v3 2009 in the categories of Sustainable Sites, Energy & Atmosphere, Materials & Resources, Indoor Environmental Quality and Innovation & Design.

Contact Kalwall Corporation at 800-258-9777 or www.kalwall.com

Circle no. 313

BUILDING: A NETWORK

ARCHITECT's Web site is laying the base for a premier electronic experience for practicing architects. We organize the site, you reflect on the ideas. Market intelligence, a building products database, breaking news—all established to help grow a continuing collection of inspiration. To join the network, visit **architectmagazine.com**.

ARCHITECT

hanley wood

Advertiser	Page	Circle	Website	Phone
Adams Rite	24	257	www.RiteDoor.com	
Annual Design Review	33	-	www.architectmagazine.com/adr	
ARCAT	49	430	www.arcat.com	
Armstrong	C4	95	www.armstrong.com/recycling	877.ARMSTRONG
ASI American Specialties	18	243	www.americanspecialties.com/roval	
Belden Brick	51	82	www.beldenbrick.com	330.456.0031
Bradley	42	213	www.bradleycorp.com/advocate	800.BRADLEY
Building Systems Design, Inc.	3	23	www.speclink.com/arch	888.BSD.SOFT
C.R.Laurence Company	21	166	www.crlaurence.com	800.421.6144 x7730
Cambridge Architectural	37	24	www.cambridgearchitectural.com	
Caroma	30	259	www.caromausa.com	800.605.4218
Cascade Coil Drapery	48	81	www.cascadecoil.com	800.999.2645
CENTRIA	19	25	www.CENTRIA.com	800.752.0549
CSI	78	31	www.csinet.org/joinCSI	800.869.2900
Delta	27	27	www.deltafaucet.com/commercial/proximity	
Eurotex	47	99	www.eurotexinc.com	800.523.0731
GKD	13	260	www.gkdmetalfabrics.com	800.453.8616
Hanover Architectural Products	4	480	www.hanoverpavers.com	800.426.4242
HDI Railings	32	481	www.hdirailings.com	717.285.4088
Hoover Treated Wood Products, Inc.	21	251	www.FRTW.com	800.531.5558
Icynene	16	261	www.BuildSomethingBright.com/designright	
Invisible Structures, Inc.	6	400	www.invisiblestructures.com	800.233.1510
Knauf Insulation	2	445	www.knaufinsulation.us	800.825.4434 x8300
Lightfair International	84	412	www.lightfair.com	
Luminis	41	237	www.luminis.com/quanta	
Marble Institute of America	62	44	www.marble-institute.com	
Marvin Windows and Doors	23	210	www.marvin.com/3D	800.241.9450
MBCI	40	402	www.mbci.com/arch	877.713.6224
Metl Span	36	208	www.metlspan.com	877.585.9969
Microsoft Dynamics	35	250	www.microsoftdynamics.com/professionalservices	
NanaWall	29	211	www.nanawall.com	800.873.5673
NeoCon	39	263	www.neocon.com	
Nichiha	C3	380	www.nichiha.com	866.424.4421
Pella	9	396	www.pellacommercial.com/green	
Petersen Aluminum	11	470	www.PAC-CLAD.com	800.PAC.CLAD
PPG Industries, Inc.	C2-1, 70	46 431	www.ppgideascapes.com/SB70XI www.ppgduranar.com	 888.PPG.IDEA
S-5!	38	489	www.S-5-clamps.com/ar	888.825.3432
Simpson Strong-Tie	15	182	www.strongtie.com/strongwall	800.999.5099
The Blue Book	31	262	www.bpmselect.com	
Tile of Spain	7	385	www.spaintiles.info	305.446.4387
Typar, MetroWrap	5	483	www.typar.com/metrowrap	
U.S. Green Building Council	22	191	www.GBCI.org	

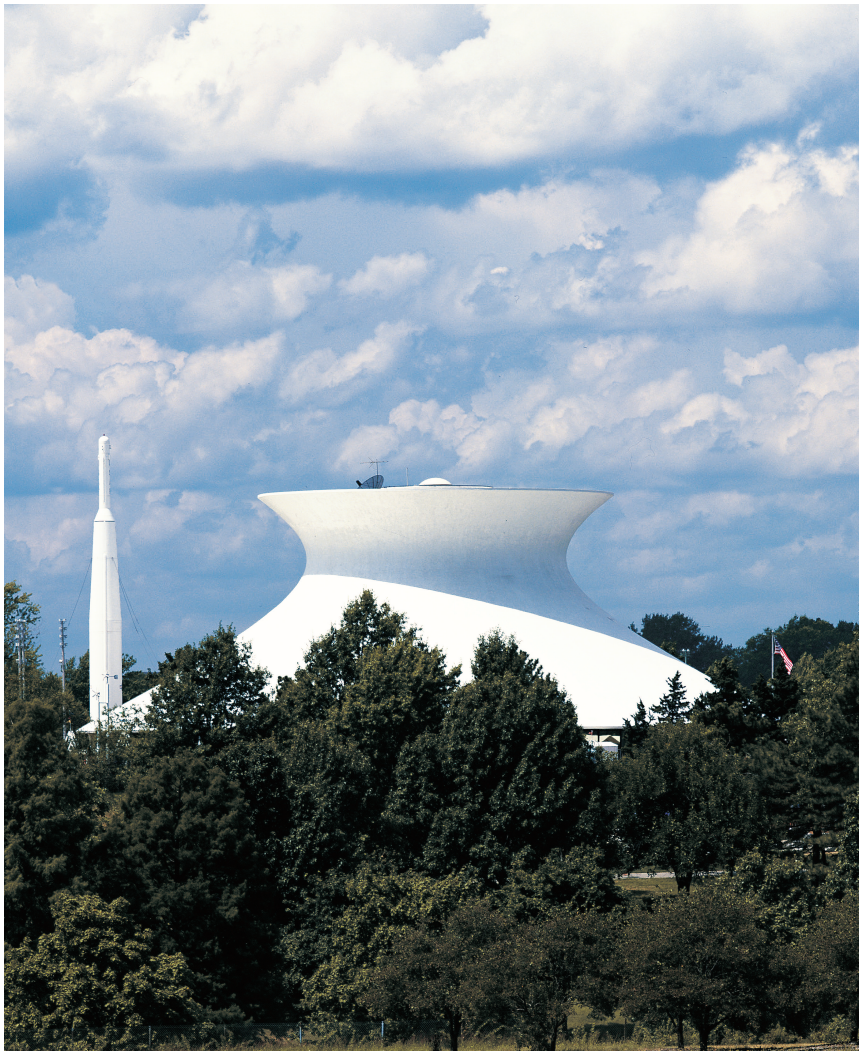
ARCHITECT hanley wood

BUILDING:
INTERACTION

ARCHITECT's Web site is laying the cornerstone for a premier Web experience for practicing architects. We set up the site, you remark on the content. Design headlines, a calendar of events, continuing education, weekly blogs and more. To join in, visit **architectmagazine.com**.

→1960 P/A AWARDS CITATION

SHELL GAME



HOK'S ST. LOUIS PLANETARIUM SHOWS HOW LOOSE-FIT, COMPLEX FORMS CAN ACCOMMODATE FAST-CHANGING, COMPLICATED FUNCTIONS.

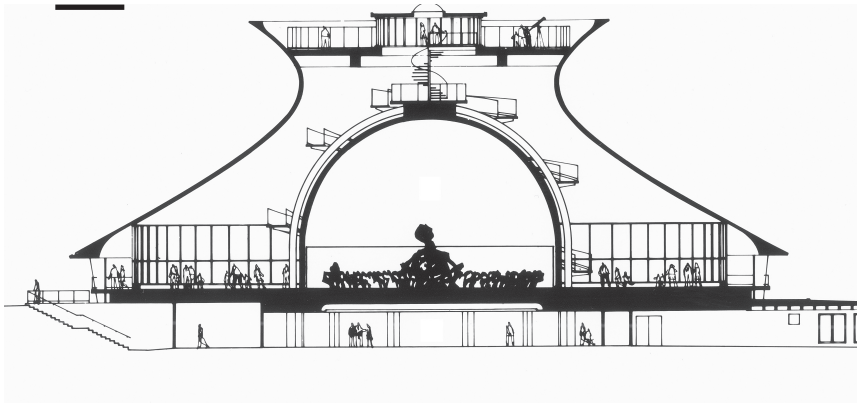
1960 P/A Awards Jury
William Caudill
Louis Kahn
Ralph Rapson
Jose Luis Sert
Lyndon Welch

TEXT BY THOMAS FISHER

THE CURRENT FASCINATION in architecture with complex geometries and expressive forms had a precedent in the HOK-designed St. Louis Planetarium, a citation winner in the 1960 P/A Awards program. Its hyperbolic, thin-shell concrete roof, consisting of straight lines rotated around a central vertical axis, created a circular shape that flared out at its base to cover a perimeter porch and glass-enclosed exhibition area and that opened up at its top to encircle a platform initially used for star-gazing. A 60-foot-diameter aluminum planetarium dome originally stood inside the structure, with a suspended spiral ramp leading up to the observation deck. Classrooms, offices, and support spaces occupied the lower level.

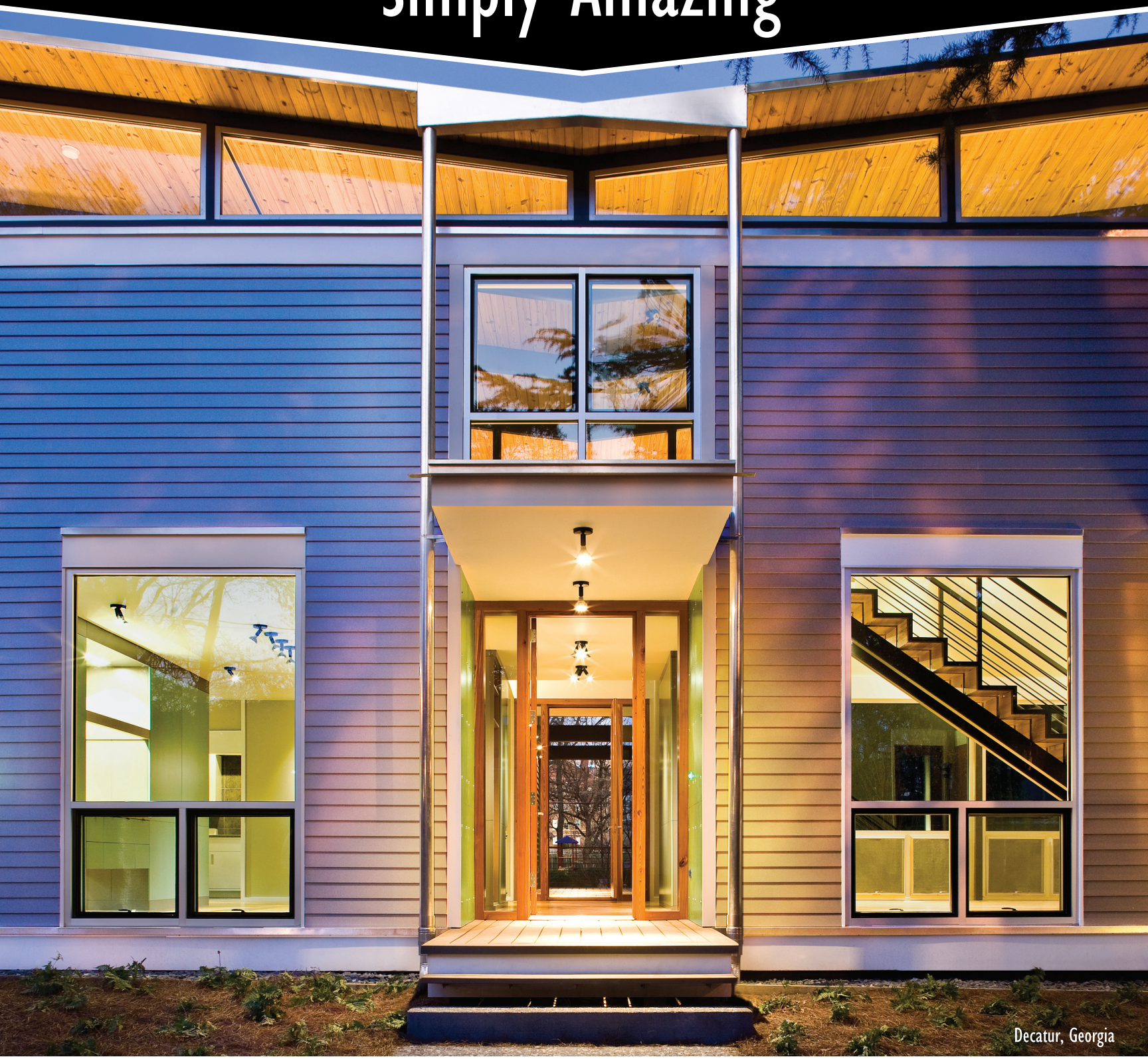
Time has proved the 1960 jury correct. While the jurors liked the "sculptured form of the exterior," they found the shape "totally unrelated to the concealed dome" and "the resulting space between the two surfaces ... awkward." In the intervening years, an 80-foot-diameter dome replaced the original, which forced the removal of the ramp and the closing of the observation deck. Exhibition standards also changed, and the once-tall, glass-enclosed display space around the dome acquired hung ceilings, with walls covering the glass. And the growth of the institution, with a large science center attached underground to the planetarium, has led to the removal of the lower-level classrooms and the transformation of that space into a reception area. The elegant hyperbolic roof remains, however, as a testament to the flexibility of complex forms that have a loose-fit relationship with their functions. □

Section



ROBERT PETTUS

Simply Amazing



Nichiha fiber cement products allow architects the freedom to bring their vision to reality.

- Earn up to 2 LEED credits
- Up to 50% recycled content
- Easy to install

1.866.424.4421 nichiha.com

Fiber Cement At Its Best™

NICHIHA

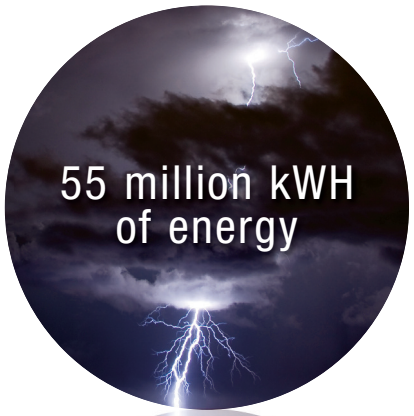
©2010 Nichiha USA, Inc. All rights reserved.

Circle no. 380 or http://architect.hotims.com

CEILING&WALL | SYSTEMS

Between us, ideas become reality™

ceiling tile recycling saves



CEILING RECYCLING PROGRAM Armstrong 10 years AND GROWING

The Armstrong Ceiling Recycling Program is an easy way for you to help save the environment. In 10 years, the nation's first, biggest and best ceiling recycling program has recycled 80 million lbs. of old ceilings – diverting over 40,000 tons from the landfill. Be a part of the solution by including ceiling tile recycling in your next specification.

Circle no. 95 or http://architect.hotims.com

armstrong.com/recycling
1 877 ARMSTRONG

greenguie LEED® CALCULATOR

Armstrong®